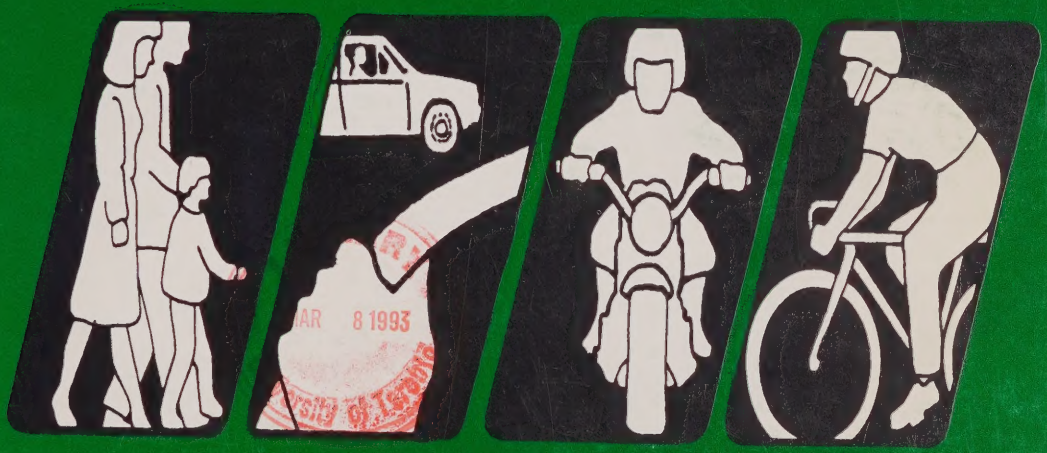
ORSAR 1991

Ontario Road Safety Annual Report



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'91 ontario road safety annual report

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Ontario
Road Safety
Annual
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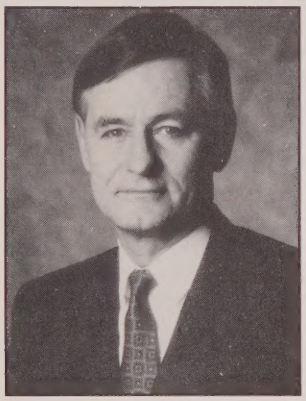
minister's message



Every Ontario citizen has a duty to make our roadways safe by showing respect for other motorists, following the rules of the road and using common sense behind the wheel. During 1991 our efforts have resulted in a decline in the number of deaths and injuries on Ontario roads.

There were 1,102 motor vehicle collision fatalities in 1991, a 1.6 per cent decrease from the previous year. Although I'm sure we all agree that even one death is too many, it is encouraging to note traffic fatalities have dropped to the 1986 level. While less traffic on our roadways during the past year accounted for a decline in collisions, I am convinced that Ontario residents working together to promote safe driving have helped to reduce deaths on our roads.

Look at the evidence. The statistics show a clear and continuing reduction in incidents of drinking and driving. At the same time, seat belt use has increased, reaching 83 per cent usage in Ontario.

But there is still plenty to be done.

Driver error remains the main cause of collisions in Ontario and we must work diligently to address this problem. A graduated licensing system that will give new drivers the experience they need, may be one solution. Enhanced educational initiatives is another. Programs to help drivers identify aggressive driving behaviour, debunk misleading information about seat belts and encourage the proper use of child restraints are all safety initiatives the Ministry of Transportation continues to promote because we know they pay huge dividends in terms of saving lives.

The need to ensure the safety of people using the roadways also includes bicyclists. During 1991, there were 27 cyclists killed and 3,975 injured in Ontario. A primary safety issue that has been raised is the need for bicycle helmets. A private member's bill was introduced in the legislature earlier this year to make bicycle helmets mandatory. Recognizing the important role bicycle helmets play in preventing injuries and fatalities, we fully support this initiative and anticipate bicycle helmets will become mandatory within 18 to 24 months.

Another way we are meeting the challenge of improving road safety is through the formation of the Ontario Road Safety Corporation. The legislation to establish this corporation is now before the Provincial Legislature.

The Ontario Road Safety Corporation will be devoted to road safety and driver and vehicle licensing in the province. Its objective is to develop partnerships and joint ventures with the private sector, community groups and professional organizations to co-ordinate and fund new and enhanced safety activities and to share advice and information. Through partnerships, the corporation will be able to draw on a much broader resource base to ensure the responsibility for road safety is understood and shared by everyone.

The Ontario Road Safety Annual Report is a valuable indicator of the current state of road safety in Ontario. Within these pages, statistics are presented on everything from the types of vehicles involved in collisions and where collisions occur, the property damage caused. This kind of information is invaluable for targeting areas in need of specific safety initiatives.

We must work together to protect lives, reduce property damage and reduce the staggering health care costs associated with collisions. I am confident that all citizens of Ontario, can and will, make meaningful contributions to achieve this goal.

Gilles Pouliot,
Minister of Transportation

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1 overview

1a. synopsis

In 1991, approximately 5.8% of the drivers and 6.4% of vehicles in the province were involved in accidents.

There were 1,102 people fatally injured in motor vehicle accidents , while 90,519 people suffered some degree of personal injury. The fatally injured comprised 542 drivers (not including motorcycle drivers), 298 were passengers, 157 pedestrians, 55 motorcycle drivers, and 9 motorcycle passengers. Other classes of road users accounted for 41 deaths.

In total, there were 213,669 accidents involving 396,780 vehicles. Of all accidents, 956 resulted in one or more people being killed, while in 59,242 accidents at least one person was injured.

In terms of alcohol involvement, tests for the presence of alcohol among drivers who were killed showed that 178 (32.5%) were legally impaired and 39 (7.1%) had consumed alcohol but were not found to be legally impaired.

People in the 16 - 20 year age group continue to be over-represented in accidents, and particularly in fatalities. In 1991, 68 motor vehicle and motorcycle drivers in this age group were killed and 6,723 were injured.

Selected Statistics

Total Reportable Accidents	213,669
Total Drivers Involved in Accidents	378,345
Total Vehicles Involved in Accidents	396,780
Fatal Accidents	956
Personal Injury Accidents	59,242
Property Damage Accidents	153,471
Persons Killed	1,102
Drivers Killed	635
Drivers Killed (Impaired or Had Been Drinking)	217
Passengers Killed	298
Pedestrians Killed	157
Other Road Users Killed	12
Persons Injured	90,519
Estimated Ontario Population (1991)	9,624,700
Licensed Drivers	6,574,231
Registered Motor Vehicles	6,190,218
Estimated Vehicle Kilometres Travelled (in millions)	72,690
Number of Persons Killed in Motor Vehicle Accidents per 100,000 People in Ontario	10.9
Number of Persons Killed in Motor Vehicle Accidents per 100 Million Kilometres Travelled	1.5
Accident Rate per 100 Million Kilometres Travelled	293.9
Fatal Accident Rate per 100 Million Kilometres Travelled	1.3

1b. selected characteristics of motor vehicle accidents in 1991

Note: *On January 1, 1988 a new Motor Vehicle Accident Report Form was introduced. These data includes the changes which were made on the form used by police forces in Ontario, and which forms the basis for the accident statistics compiled by the province of Ontario. This has resulted in changes in the ways in which the data are compiled. As a result, some of the information may not be directly comparable to data* from years prior to 1988.

Persons Killed and Injured

In 1991, the number of people killed, 1,102 , and injured, 90,519 decreased from the previous year. This represents a decrease in the number people killed of approximately 14% since 1989 and approximately a 25% decrease in people injured during the same time period. These decreases are very encouraging and are due to a large number of factors. However, the magnitude of the problem is still significant and indicates that we still have a lot of work to do in the area of road safety.

Road Users Age

Young drivers continue to be over-represented in motor vehicle accidents relative to their share of the licensed driver population. While drivers aged 16 to 24 made up 14% of the driver population, they comprised 23% of the drivers involved in accidents. Approximately 1 in 8 drivers aged 16 and 17 were involved in a collision in 1991.

Approximately 9% of persons killed were under the age of 16 years old and almost 11% of road users injured were in the same age category. The majority of these deaths and injuries were as passengers in vehicles, pedestrians or cyclists.

Of the 0 to 4 year old children killed in a motor vehicle, 38% were wearing a lap/lap & shoulder belt, 31% were not using any restraint system, and 8% were incorrectly using a child restraint.

It is important to remember these small road users are at risk and need to be taught safety consciousness, and the use of safety equipment including restraints in vehicles, bicycle helmets and traffic awareness.

Driver Action

Drivers who were driving properly at the time of their collision continue to average around 45%. Failure to yield the right of way, speed too fast, loss of control and following too closely continue to be the most frequently reported driver errors in all collisions. Excessive speed continues to be the leading driver action, cited in 15.9% of fatal collisions. Speeding is also a drivers action cited for approximately 30% of motorized snow vehicles and all terrain vehicle drivers in collisions.

Alcohol Involvement

Alcohol involvement continued to be the leading non-normal driver condition reported in all collisions . Drivers with a Blood Alcohol Concentration in excess of the legal limit of 80 mg% increased from 11% to 13%. The incidence of alcohol use in drivers killed also increased, from approximately 36% to 40%. While these figures are well below the almost 60% experienced in the early 1980's, it is disconcerting to see the numbers rising.
Alcohol is also a significant problem in off road vehicle collisions. Alcohol was a factor in over 20% of all motorized snow vehicle drivers and 15% of all terrain vehicle drivers in collisions. Care needs to be exercised in the use of alcohol and motorized vehicles at all times.

1c. the health perspective

Hospital Emergency Departments receive most people injured in motor vehicle accidents. The majority of those have sustained minimal or minor injuries and are therefore released without being admitted to hospital for in-patient care. However, people suffering major and severe injuries are admitted as in-patients. Detailed statistics are captured for in-patients and described below.

Between April 1, 1990 and March 31, 1991, there were 10,642 acute (short term) hospital admissions related to motor vehicle accidents.

The 10,642 acute hospital admissions resulted in 159,038 hospital days of stay during the fiscal year 1990-91, making the average stay per admission 14.9 hospital days.

According to data provided by the hospitals 4,222 patients underwent surgery in the course of their hospital treatment and 208 patients died in the hospital subsequent to their admission for in-patient care.

Ninety-six per cent of those hospitalized were Ontario residents, 1% were Quebec residents, and the rest of the patients were residents of other Canadian provinces and the United States.

Selected Diagnoses of Motor Vehicle Accident Injuries Hospitalized in Ontario, 1990/91

Selected Diagnoses	Hospital Admissions	Hospital Days of Stay
Fracture of skull	618	18,527
Fracture of neck and trunk	1,767	27,977
Fracture of upper limb	687	4,506
Fracture of lower limb	1,687	27,611
Dislocation, sprains and strains	503	2,557
Intracranial injury, excluding those with skull fracture	2,086	33,935
Internal injury of chest, abdomen and pelvis	638	6,199
Open wound of head, neck and trunk	376	1,244
Open wound of upper limb	71	566
Open wound of lower limb	107	1,544
Other injuries, burns and traumatic complications	2,102	34,372
Total Admissions and Days	**10,642**	**159,038**

Selected Surgical Procedures for Motor Vehicle Accident Injuries Hospitalized in Ontario, 1990/91

Selected Procedures	Hospital Admissions	Hospital Days of Stay
Operations on skull, brain and cerebral meninges	182	6,308
Operations on spinal cord and canal structures	92	1,561
Operations on nose, mouth and pharynx	104	637
Operations on chest wall, pleura, mediastinum and diaphragm	129	1,300
Operations on bone marrow and spleen	99	1,349
Operations on kidney	89	917
Operation on facial bones and joints	200	2,005
Reduction of fracture and dislocation	1,838	25,706
Repair and plastic operations on joint structures	141	2,241
Operations on skin and subcutaneous tissue	641	3,929
Other surgical procedures	707	12,497
Sub-total of surgical admissions and days	**4,222**	**58,450**
No surgical procedures reported	**6,420**	**100,588**
Total Admissions and Days	**10,642**	**159,038**

2 the people

In 1991, there were 6,574,231 drivers licensed in the province of Ontario. Despite this increase in the number of licensed drivers, the number of deaths and injuries has decreased once again this year. Deaths decreased to 1,102 or almost 2%. Injuries decreased by 10% to 90,519. This marks the second year in a row where the number of deaths and injuries on Ontario roads has decreased.

Young people under 21 years of age, represented 20% of the road users killed on Ontario roads. Drivers under the age of 21 represented 14.5% all drivers killed. This same age group represented 14.6% of pedestrians killed. Approximately 13% of drivers injured and almost 40% of pedestrians injured were under 21 years of age.

Almost 9% of fatalities and 11% of injuries involved children less than 16 years old. Over half of the children killed and a third of the children injured were passengers in motor vehicles. Approximately 15% of deaths and injuries of children were as pedestrians and a further 15% were cyclists.

In total, 13 children under age 4 were killed in a motor vehicles in 1991. Five of these children were wearing adult type restraints while 4 were not using any restraint system at all. Two children were in a child restraint correctly used and one was incorrectly secured in the child restraint. Restraint information was not available in one case.

Alcohol involvement remains the single most significant factor in accident fatalities. The decreasing trend of alcohol use did not continue in 1991. The number of drivers in fatal accidents whose Blood Alcohol Concentration was in excess of 80 mg% actually increased, despite the decrease in the total number of drivers in fatal accidents. This increase is also evident in the number of fatally injured drivers who were legally impaired and had been drinking.

2a. people in accidents

Table 2.1 Category of Involved Person by Severity of Injury in Fatal and Personal Injury Accidents 1991

Category of Involved Person	Severity of Injury					Total
	None	Minimal	Minor	Major	Fatal	
Driver	52,105	27,027	17,726	3,268	542	**100,668**
Passenger*	32,290	16,113	11,820	2,186	298	**62,707**
Pedestrian	129	2,017	2,592	743	157	**5,638**
Cyclist	78	1,895	1,657	245	27	**3,902**
Cyclist Passenger	23	77	88	13	-	**201**
All Terrain Vehicle Driver	8	7	19	8	4	**46**
All Terrain Vehicle Passenger	3	1	7	1	1	**13**
Snow Vehicle Driver	9	12	10	14	4	**49**
Snow Vehicle Passenger	3	3	5	4	1	**16**
Motorcycle Driver	141	703	1,085	395	55	**2,379**
Motorcycle Passenger	68	158	242	87	9	**564**
Moped Driver	10	18	14	5	-	**47**
Moped Passenger	6	3	6	-	-	**15**
Hanger On	44	44	47	20	-	**155**
Other	1,977	73	47	14	4	**2,115**
Total	**86,894**	**48,151**	**35,365**	**7,003**	**1,102**	**178,515**

* Includes bus passengers

Due to a change in the method of tabulating accident statistics, this table excludes the uninjured victims involved in property damage only accidents.

Fatal	Person killed immediately or within 30 days of the motor vehicle accident.
Major	Person admitted to hospital. Includes person admitted for observation.
Minor	Person went to hospital and was treated in the emergency room but was not admitted.
Minimal	Person did not go to hospital when leaving the scene of the accident. Includes minor abrasions, bruises and complaint of pain.
None	Uninjured person.

Approximately 1% of people in injury and fatal collisions were killed, 4% suffered a major injury, 20% had a minor injury and 27% had minimal injuries.

Figure 2.1 Persons Killed 1982 - 1991

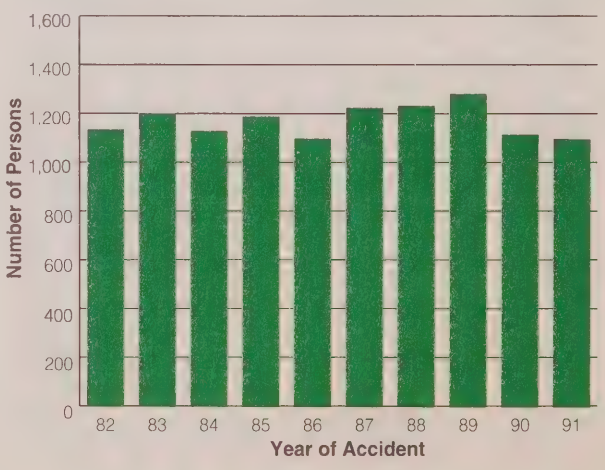


Table 2.2 Category of Persons Killed by Age Groups 1991

Category of Persons	Age Groups																Total
	0-4	5-9	10-15	16	17	18	19	20	21-24	25-34	35-44	45-54	55-64	65-74	75+	UK	
Driver	-	1	-	9	13	10	5	15	66	132	97	58	54	45	35	2	**542**
Passenger*	13	16	24	10	6	8	8	8	36	44	23	16	33	25	28	-	**298**
Pedestrian	5	5	7	1	1	1	1	2	9	17	20	9	14	21	44	-	**157**
Cyclist	2	6	7	-	1	-	-	2	1	2	4	1	-	-	1	-	**27**
Cyclist Passenger	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
ATV Driver	-	-	2	1	-	1	-	-	-	-	-	-	-	-	-	-	**4**
ATV Passenger	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	**1**
Snow Vehicle Driver	-	-	-	-	-	-	-	-	1	3	-	-	-	-	-	-	**4**
Snow Vehicle Passenger	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**1**
Motorcycle Driver	-	-	2	1	2	3	6	4	9	19	4	2	3	-	-	-	**55**
Motorcycle Passenger	-	-	2	1	-	-	2	-	3	1	-	-	-	-	-	-	**9**
Moped Driver	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Moped Passenger	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	**-**
Other	-	1	1	-	-	-	-	-	1	-	1	-	-	-	-	-	**4**
Total	**20**	**30**	**46**	**23**	**23**	**23**	**22**	**31**	**126**	**218**	**149**	**86**	**104**	**91**	**108**	**2**	**1,102**

* Includes one hanger on

Persons in the 16 to 24 year age group continue to be over-represented in fatalities, comprising 248 (22.5%) of those killed. While drivers in this age group only comprise 14.4% of all licensed drivers, their deaths (143) represent 23.8% of all driver fatalities.

Eighteen percent of all fatalities were 65 years of age or older. A majority of these fatalities were driver, 41%, followed by pedestrians, 33%, and passengers, 27%.

Figure 2.2 Persons Injured and Severity of Injuries 1982 - 1991

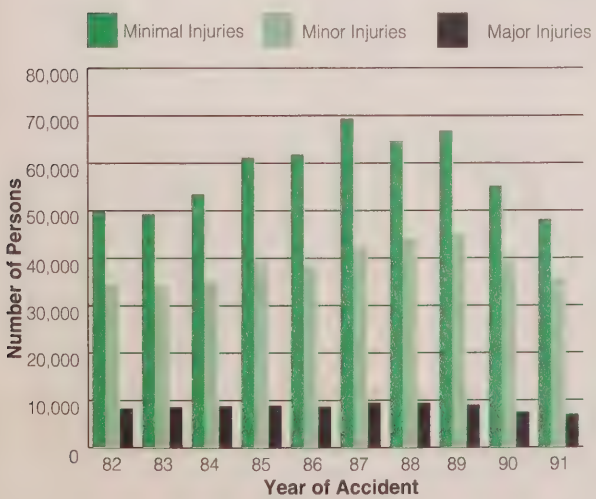


Figure 2.3 Per Cent of Total Persons Killed by Age 1991

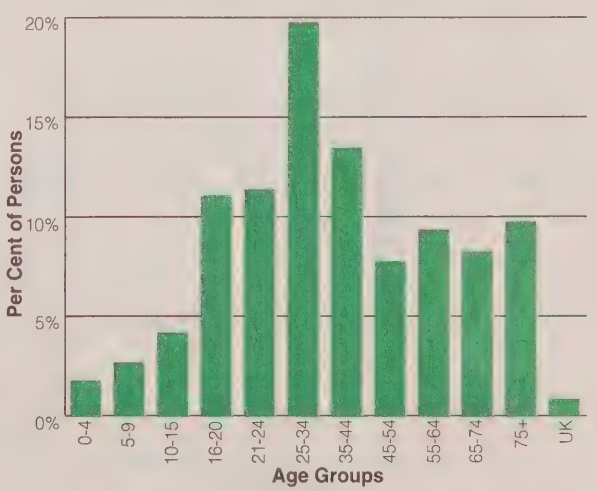


Table 2.3 Category of Persons Injured by Age Groups 1991

Category of Persons	Age Groups 0-4	5-9	10-15	16	17	18	19	20	21-24	25-34	35-44	45-54	55-64	65-74	75+	UK	Total
Driver	20	4	88	822	1,149	1,316	1,340	1,501	5,727	14,055	9,972	5,571	3,543	1,971	863	79	**48,021**
Passenger*	1,478	1,902	2,855	1,072	1,124	1,121	1,063	1,072	3,182	5,627	3,207	2,191	1,760	1,301	722	553	**30,230**
Pedestrian	198	572	750	146	133	116	114	124	389	866	600	383	354	290	223	94	**5,352**
Cyclist	162	391	948	141	116	133	137	133	417	671	259	109	65	50	15	50	**3,797**
Cyclist Passenger	7	20	49	6	4	7	9	7	21	29	11	3	5	-	-	-	**178**
ATV Driver	-	1	10	1	2	-	-	3	6	7	3	-	-	1	-	-	**34**
ATV Passenger	-	1	2	1	2	2	-	-	1	-	-	-	-	-	-	-	**9**
Snow Vehicle Driver	1	-	4	3	5	5	-	1	7	9	-	1	-	-	-	-	**36**
Snow Vehicle Passenger	-	2	1	2	1	2	1	1	1	1	-	-	-	-	-	-	**12**
Motorcycle Driver	2	1	11	57	91	123	157	167	468	676	292	89	32	15	-	2	**2,183**
Motorcycle Passenger	1	5	28	31	23	36	37	31	95	122	44	25	7	2	-	-	**487**
Moped Driver	-	1	1	2	1	2	3	1	3	5	2	5	9	1	1	-	**37**
Moped Passenger	-	1	-	3	-	-	1	-	-	2	-	-	2	-	-	-	**9**
Other	3	2	5	3	3	1	3	2	13	28	21	19	7	5	6	13	**134**
Total	**1,872**	**2,903**	**4,752**	**2,290**	**2,654**	**2,864**	**2,865**	**3,043**	**10,330**	**22,098**	**14,411**	**8,396**	**5,784**	**3,636**	**1,830**	**791**	**90,519**

* Includes 111 hangers on

The number of people injured in HTA reportable accidents decreased again in 1991. This decrease represents approximately 11% fewer people being injured.

Approximately 6% of injured people were over the age of 64. Fifty-three per cent of these were drivers, 37% were passengers, 9% were pedestrians and 1% were cyclists.

Figure 2.4 Per Cent of Total Persons Injured by Age 1991

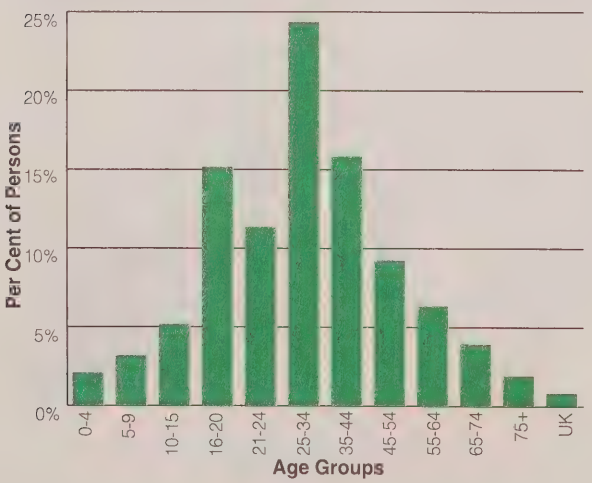


Table 2.4 Sex of Driver by Class of Accident 1991

Sex of Driver	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
Male	1,227	71,018	176,171	**248,416**
Female	332	33,798	75,186	**109,316**
Unknown	21	3,284	17,308	**20,613**
Total	**1,580**	**108,100**	**268,665**	**378,345**

While male drivers comprise 55% of the driver population, they account for 66% of the drivers involved in motor vehicle accidents. Male drivers were involved in 78% of the fatal accidents, and 66% of both personal injury and property damage accidents.

Table 2.5 Driver Condition by Class of Accident 1991

Condition of Driver	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
Normal	1,071	89,071	221,445	**311,587**
Had Been Drinking	96	3,499	4,472	**8,067**
Ability Impaired -				
Alcohol over .08	204	2,165	2,631	**5,000**
Ability Impaired Alcohol	18	823	903	**1,744**
Ability Impaired Drugs	-	62	121	**183**
Fatigue	17	641	813	**1,471**
Medical Physical Defect	7	455	405	**867**
Inattentive	45	4,624	10,404	**15,073**
Other	3	230	427	**660**
Unknown	119	6,530	27,044	**33,693**
Total	**1,580**	**108,100**	**268,665**	**378,345**

Had Been Drinking	Driver had consumed alcohol but his/her physical condition was not legally impaired.
Ability Impaired Alcohol over .08	Driver had consumed alcohol and upon testing was found to have a blood alcohol level in excess of 80 mg%.
Ability Impaired Alcohol	Driver had consumed sufficient alcohol to warrant being charged with a drinking and driving offence.
Inattentive	Driver was operating a motor vehicle without due care and attention or placing less than full concentration on driving, e.g., changing radio stations, consuming food, reading, talking on phone or two-way radio, using headphones.

Almost 15,000 drivers had been drinking prior to being involved in the accident. Alcohol consumption was involved in 3.9% of all accidents. In property damage accidents, 3.0% of drivers were alcohol involved. This increased to 6.0% of personal injury accidents and 20.1% of accidents involving fatalities.

Figure 2.5 Per Cent Driver Condition in Fatal Accidents 1982 - 1991

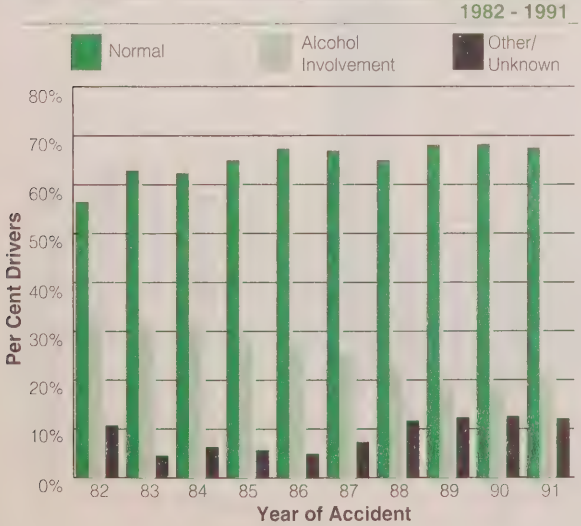


Table 2.6 Driver Age by Driver Condition In all Accidents 1991 *

Driver Age	Driver Condition						Total
		Had Been	Impaired Alcohol	Ability Impaired			
	Normal	Drinking	over.08	Alcohol	Other	Unknown	
Under 16	1,660	28	7	1	268	142	**2,106**
16	5,359	82	15	4	418	263	**6,141**
17	7,548	155	53	18	598	370	**8,742**
18	8,343	233	95	31	620	410	**9,732**
19	8,444	336	143	36	609	454	**10,022**
20	8,778	388	181	35	563	489	**10,434**
21-24	35,641	1,402	651	226	2,104	1,831	**41,855**
25-34	90,428	2,883	1,905	699	4,802	4,580	**105,297**
35-44	64,272	1,387	1,063	396	3,065	2,842	**73,025**
45-54	37,559	570	512	164	1,782	1,585	**42,172**
55-64	23,894	253	238	79	1,363	934	**26,761**
65-74	13,377	149	107	29	1,022	534	**15,218**
75 & over	5,148	32	14	4	725	285	**6,208**
Unknown	1,136	169	16	22	315	18,974	**20,632**
Total	**311,587**	**8,067**	**5,000**	**1,744**	**18,254**	**33,693**	**378,345**

* Includes bicyclists, drivers of all-terrain vehicles, etc.

Table 2.7 Recorded Occurrence of Alcohol In Drivers Killed 1991*

Recorded Occurrence	Drivers Number	Drivers %
Apparently Normal	331	60.4
Had Been Drinking	39	7.1
Alcohol over .08	170	31.0
Ability Impaired Alcohol	8	1.5
Total	**548**	**100.0**

* Excludes cases where alcohol usage was unknown and cases where driver condition was other than normal or alcohol involved.

Alcohol was involved in 39.6 % of the 548 drivers killed in 1991 for whom alcohol use was recorded. Of those drivers who had been drinking, 7.1% had a Blood Alcohol Concentration of less that the legal limit of 80 mg%. Thirty-one per cent had a BAC in excess of 80 mg% and a further 1.5% had their ability impaired due to alcohol.

Figure 2.6 Per Cent Driver Condition in Personal Injury Accidents 1982 - 1991

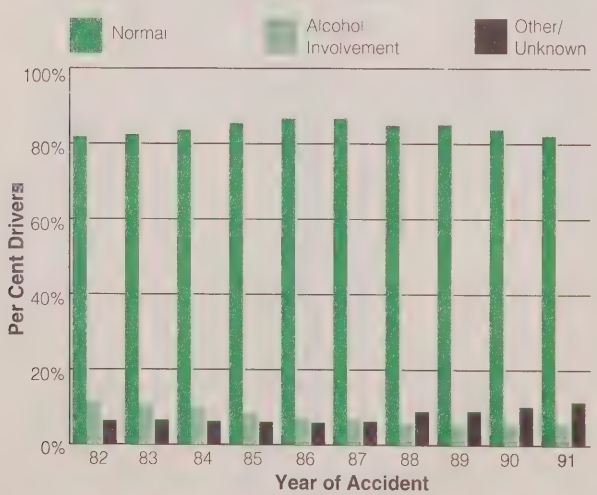


Figure 2.7 Per Cent Recorded Alcohol Occurrence in Drivers Killed 1982 - 1991

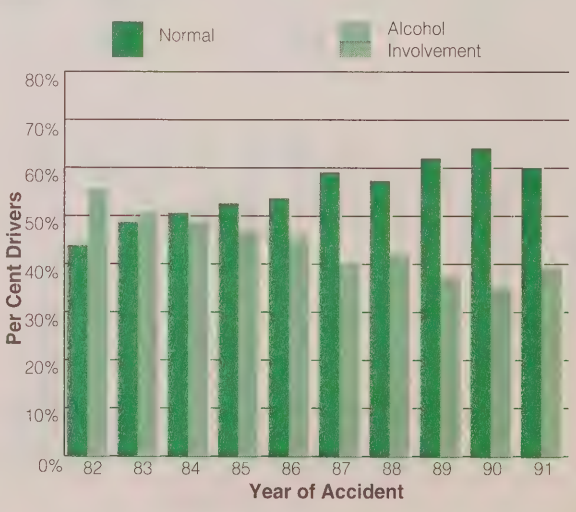


Table 2.8 Apparent Driver Action by Class of Accident 1991

Apparent Driver Action	Class of Accident			Total
	Fatal	Personal Injury	Property Damage	
Driving Properly	673	49,998	120,346	**171,017**
Following Too Close	6	7,530	18,376	**25,912**
Speed Too Fast	135	1,902	2,337	**4,374**
Speed Too Fast for Conditions	117	7,005	17,125	**24,247**
Speed Too Slow	1	90	200	**291**
Improper Turn	26	3,845	13,014	**16,885**
Disobey Traffic Control	83	4,983	7,519	**12,585**
Fail to Yield Right of Way	87	10,485	26,916	**37,488**
Improper Passing	37	1,034	3,654	**4,725**
Lost Control	155	8,568	19,723	**28,446**
Wrong Way on One Way Road	2	142	235	**379**
Improper Lane Change	10	1,931	9,887	**11,828**
Other*	180	7,743	18,592	**26,515**
Unknown	68	2,844	10,741	**13,653**
Total	**1,580**	**108,100**	**268,665**	**378,345**

*Includes actions defined as careless driving, inattentive driving, fell asleep, hit and run, wrong side of road, improper parking, impaired, illegally parked, dangerous driving, inexperience, etc.

** This table only refers to drivers for whom the driver condition was other than normal and is thus a percentage of a percentage of all drivers in collisions.

Figure 2.8 Apparent Driver Action other than Normal In Fatal Accidents 1991**

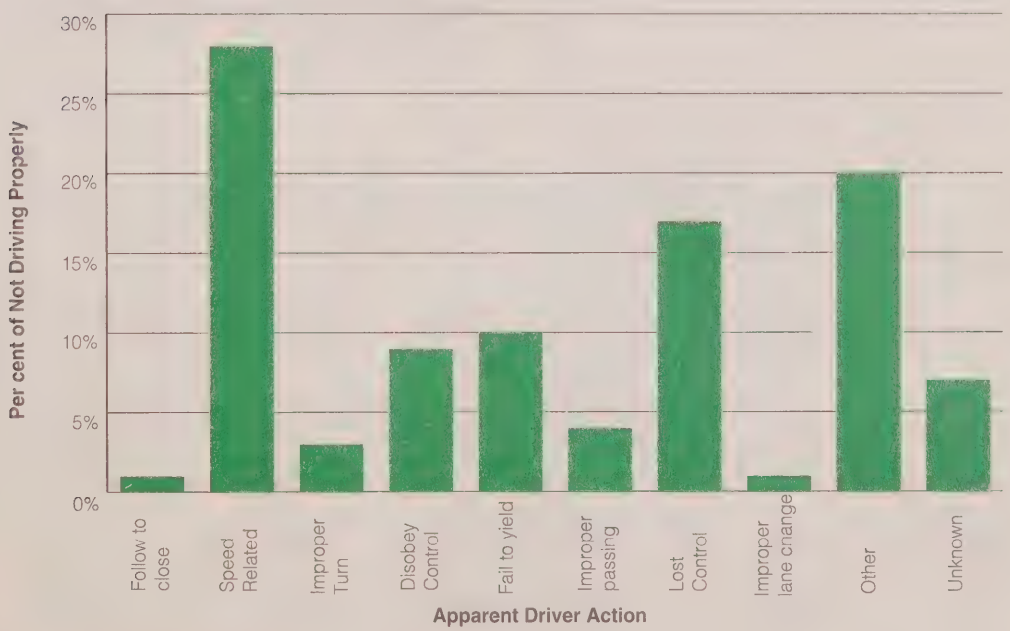


Table 2.9 Seat Belt Usage by Severity of Driver Injury in Fatal and Personal Injury Accidents 1991

Safety Equipment Used	Severity of Injury					
	Killed	Major	Minor	Minimal	Not Injured	Total
Seat Belt Used	263	2,186	14,789	24,699	43,263	**85,200**
Other Equipment*	1	18	57	56	28	**160**
Equipment Not Used	215	694	1,706	1,204	946	**4,765**
No Safety Equipment	4	12	65	83	144	**308**
Use Unknown	59	358	1,109	985	7,724	**10,235**
Total	**542**	**3,268**	**17,726**	**27,027**	**52,105**	**100,668**

* Other equipment includes helmets, including construction, motorcycle helmets, etc. worn in a motor vehicle. It also includes the use of airbags. Seat belt usage in conjunction with airbag deployment is unknown.

The tables above and below only include seat belt usage in accidents in which there were personal injuries or fatalities. Property damage only accidents are excluded. ORSARs published prior to 1988, Tables 2.9 and 2.10 included seat belt usage in all accidents.

Of all occupants in fatal and personal injury accidents, approximately 85% of the drivers were wearing seat belts. Approximately 72% of passengers were wearing a seat belt.

Commentary for Tables 2.10, 2.11 and 2.12

A large number of young children are transported in child safety seats; therefore more will be killed or injured in these restraint systems. This does not mean that child safety seats are not effective. Some collisions are not survivable. Used correctly, child restraints are the simplest and one of the most effective means of protecting children in an accident.

It is also known from observational surveys that many child safety seats are not used correctly. This is not clear in these tables since children are often removed from the child safety seats before the police officer arrives on the scene. Both correct installation of the seats according to the manufacturer's instructions and correct use of the device in the vehicle are important for the child's protection. In 1991, five out of eight children killed under the age of 5 years old were wearing adult type safety restraints. A further 3 were not using any restraint system although available, and 2 were killed using a child restraint incorrectly.

Table 2.10 Seat Belt Usage by Severity of Passenger Injury in Fatal and Personal Injury Accidents 1991

Safety Equipment Used	Severity of Injury					
	Killed	Major	Minor	Minimal	Not Injured	Total
Seat Belt Used	139	1,244	8,601	13,142	22,349	**45,475**
Child Safety Seat Used Incorrectly	1	4	19	20	59	**103**
Child Safety Seat Used Correctly	2	24	211	338	1,725	**2,300**
Other Equipment*	1	4	11	11	15	**42**
Equipment Not Used	109	584	1,787	1,252	1,021	**4,753**
No Safety Equipment	5	137	617	697	1,268	**2,724**
Use Unknown	41	209	621	697	5,897	**7,465**
Total	**298**	**2,206**	**11,867**	**16,157**	**32,334**	**62,862**

Table 2.11 Restraint Use for Children (0 - 4 Years) Killed in Accidents 1988-1991

Year	Child Restraint Used Correctly	Child Restraint Used Incorrectly	Lap/Lap & Shoulder Belt	Restraint Not Available	Available Not Used	Use Unknown	Total
1988	2	-	8	1	-	1	**12**
1989	6	2	3	2	-	5	**18**
1990	5	1	7	-	3	4	**20**
1991	2	1	5	1	3	1	**13**

Table 2.12 Restraint Use for Children (0 - 4 Years) Involved in Fatal and Personal Injury Accidents by Severity of Injury 1991

Restraint Used	Injury Level		
	Major / Fatal %	Minimal/Minor %	No Injuries %
Child Restraint Used Correctly	22.6	35.6	47.2
Child Restraint Used Incorrectly	4.9	2.5	1.5
Lap /Lap-Shoulder Belt	33.3	48.6	45.4
Not Available	8.8	4.8	2.1
Available/Not Used	20.6	5.0	1.4
Other	1.0	0.2	0.1
Unknown	8.8	3.3	2.3
Total	**100.0**	**100.0**	**100.0**

Note: Commentary for Tables 2.11 and 2.12 is on pg. 12.

Table 2.13 Pedestrian Condition by Severity of Injury 1991

Condition of Pedestrian	Killed	Injured
Normal	80	3,476
Had Been Drinking	10	342
Ability Impaired Alcohol over .08	19	18
Ability Impaired Alcohol	5	129
Ability Impaired Drugs	-	13
Fatigue	-	6
Medical or Physical Defect	11	110
Inattentive	12	734
Other	4	67
Unknown	16	457
Total	**157**	**5,352**

A condition of normal was recorded for 51.0% of pedestrians who had been killed, and 64.9% of those injured. Pedestrians who had been drinking accounted for 21.7% of all pedestrians killed, and 9.1% of pedestrians who were injured.

Table 2.14 Apparent Pedestrian Action by Severity of Injury 1991

Apparent Pedestrian Action	Killed	Injured
Crossing Intersection With Right of Way	12	1,241
Crossing Intersection Without Right of Way	30	892
Crossing Intersection No Traffic Control	26	502
Crossing Pedestrian Crossover	-	146
Crossing Marked Crosswalk without Right of Way	2	105
Walking on Roadway With Traffic	11	120
Walking on Roadway Against Traffic	6	77
On Sidewalk or Shoulder	15	376
Playing or Working on Highway	2	104
Coming from Behind Parked Vehicle or Object	3	277
Running onto Roadway	18	758
Getting On/Off School Bus	2	9
Getting On/Off Vehicle	2	99
Pushing/Working on Vehicle	2	44
Other	26	602
Unknown	-	-
Total	**157**	**5,352**

2b. putting the people in context

Table 2.15 Category of Persons Killed and Injured 1982-1991

Year	Ontario Population (Est.)	Category of Persons								Persons Killed		Persons Injured	
		Driver		Passenger*		Pedestrian		All Others		In All Classes		In All Classes	
											Rate Per		Rate Per
		Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Number	100,000	Number	100,000
1982	8,715,000	487	45,409	296	31,588	179	5,981	176	9,837	1,138	13.1	92,815	1,065.0
1983	8,816,000	528	45,440	302	30,283	204	5,618	170	10,365	1,204	13.7	91,706	1,040.2
1984	9,024,000	460	48,674	282	31,865	189	5,767	201	10,924	1,132	12.5	97,230	1,077.5
1985	9,066,000	502	55,859	333	35,717	182	6,099	174	11,494	1,191	13.1	109,169	1,204.2
1986	9,181,900	511	57,233	289	34,915	153	5,781	149	10,910	1,102	12.0	108,839	1,185.4
1987	9,270,700	545	64,588	318	39,596	187	5,939	179	10,966	1,229	13.3	121,089	1,306.2
1988	9,439,600	563	63,339	350	39,157	186	6,344	138	9,318	1,237	13.1	118,158	1,251.7
1989	9,598,600	627	66,334	369	39,950	161	6,187	129	8,181	1,286	13.4	120,652	1,257.0
1990	9,743,300	540	55,073	321	33,606	154	5,839	105	7,057	1,120	11.5	101,575	1,042.5
1991	10,084,900	542	48,021	298	30,230	157	5,352	105	6,916	1,102	10.9	90,519	897.6

* Excludes Motorcycle passengers, which are included with "All Others".

The number of people killed in motor vehicle collisions (1,102) is the lowest since 1986. The number of injuries has decreased to 90,519. The rate per 100,00 people killed fell in 1991 as did the injury rate per 100,000 people injured.

Almost 50% of the people killed were drivers. A further 27% were passengers and 14% were pedestrians.

Table 2.16 Sex of Driver Population by Age Groups 1991

Sex of Driver	Age Groups							Total
	16-19	20-24	25-34	35-44	45-54	55-64	65+	
Male	176,235	341,324	896,240	791,047	557,372	425,827	409,719	**3,597,764**
Female	143,349	286,607	777,262	710,718	460,993	310,825	286,713	**2,976,467**
Total	**319,584**	**627,931**	**1,673,502**	**1,501,765**	**1,018,365**	**736,652**	**696,432**	**6,574,231**

Table 2.17 Driver Population Age Groups 1982-1991

Year	Age Groups							Total
	16-19	20-24	25-34	35-44	45-54	55-64	65+	
1982	342,136	670,118	1,328,974	1,051,422	779,235	628,131	447,182	**5,247,198**
1983	320,478	682,033	1,359,350	1,103,403	792,933	650,687	471,375	**5,380,259**
1984	300,364	689,476	1,396,560	1,155,421	806,207	671,271	494,612	**5,513,911**
1985	293,908	687,467	1,443,327	1,205,614	820,397	685,640	524,069	**5,660,422**
1986	295,107	676,283	1,494,658	1,257,724	840,322	697,254	556,451	**5,817,799**
1987	305,886	662,357	1,544,926	1,306,853	866,022	708,865	583,196	**5,978,105**
1988	310,764	643,691	1,588,516	1,353,841	898,103	714,266	608,931	**6,118,112**
1989	323,109	631,470	1,634,187	1,409,053	931,991	720,788	639,826	**6,290,424**
1990	322,542	629,478	1,666,474	1,467,699	964,925	728,380	669,385	**6,448,883**
1991	319,584	627,931	1,673,502	1,501,765	1,018,365	736,652	696,432	**6,574,231**

Overall the number of licensed drivers continues to increase. The number of drivers under the age of 25 decreased again in 1991.

Table 2.18 Driver Licence Class by Sex 1991

Licence Class	Driver Sex				Total	%
	Male	%	Female	%		
A	77,810	2.16	885	.02	**78,695**	**1.19**
AM	26,841	.74	140	.00	**26,981**	**.41**
AB	3,777	.10	273	.00	**4,050**	**.06**
AC	10,942	.30	187	.00	**11,129**	**.16**
ABM	1,929	.05	105	.00	**2,034**	**.03**
ACM	5,496	.15	47	.00	**5,543**	**.08**
B	17,783	.49	17,008	.57	**34,791**	**.52**
BM	4,811	.13	914	.03	**5,725**	**.08**
C	7,878	.21	520	.01	**8,398**	**.12**
CM	2,148	.05	59	.00	**2,207**	**.03**
D	195,986	5.44	8,271	.27	**204,257**	**3.10**
DM	44,595	1.23	539	.01	**45,134**	**.68**
DE	111	.00	20	.00	**131**	**.00**
DF	2,241	.06	82	.00	**2,323**	**.03**
DEM	23	.00	0	.00	**23**	**.00**
DFM	1,014	.02	15	.00	**1,029**	**.01**
E	1,479	.04	2,813	.09	**4,292**	**.06**
EM	196	.00	69	.00	**265**	**.00**
F	8,630	.23	5,477	.18	**14,107**	**.21**
FM	2,255	.06	335	.01	**2,590**	**.03**
G	2,844,033	79.05	2,891,205	97.13	**5,735,238**	**87.23**
GM	333,928	9.28	46,934	1.57	**380,862**	**5.79**
M	3,858	.10	569	.01	**4,427**	**.06**
Total	**3,597,764**	**54.72**	**2,976,467**	**45.27**	**6,574,231**	**100.00**

Table 2.19 Licensed Drivers, Total Accidents, Persons Killed and Injured 1931-1991

Year	Licensed Drivers	Total Accidents	Persons Killed	Persons Injured
1931	666,266	9,241	571	8,494
1932	648,710	9,171	502	8,231
1933	638,710	8,634	403	7,877
1934	665,743	9,645	512	8,990
1935	707,457	10,648	560	9,839
1936	755,765	11,388	546	10,251
1937	802,765	13,906	766	12,092
1938	866,729	13,715	640	11,683
1939	899,572	13,710	652	11,638
1940	937,551	16,921	716	13,715
1941	986,773	18,167	801	14,275
1942	961,883	13,490	567	10,205
1943	919,457	11,025	549	8,628
1944	905,650	11,004	498	8,373
1945	971,852	13,458	598	9,804
1946	1,087,445	17,356	688	12,228
1947	1,144,291	22,293	734	13,056
1948	1,209,408	27,406	740	14,970
1949	1,278,584	34,472	830	17,469
1950	1,366,388	43,681	791	19,940
1951	1,461,538	54,920	949	22,557
1952	1,556,559	58,515	1,010	23,643
1953	1,656,259	65,866	1,082	24,353
1954	1,747,567	62,509	1,045	24,607
1955	1,856,845	63,219	1,111	26,246
1956	1,967,789	71,399	1,180	28,626
1957	2,088,551	76,302	1,279	30,414
1958	2,176,417	76,884	1,112	30,106
1959	2,270,246	81,518	1,187	31,602
1960	2,355,567	87,186	1,166	34,436
1961	2,414,615	85,577	1,268	37,146
1962	2,469,425	94,231	1,383	41,766
1963	2,555,015	104,919	1,421	47,801
1964	2,694,023	111,232	1,424	54,560
1965	2,739,138	128,462	1,611	60,917
1966	2,821,648	139,781	1,596	65,210
1967	3,004,654	145,008	1,719	67,280
1968	3,128,509	155,127	1,586	71,520
1969	3,247,979	169,395	1,683	74,902
1970	3,422,892	141,609	1,535	75,126
1971	3,563,197	158,831	1,769	84,650
1972	3,688,541	189,494	1,934	95,181
1973	3,841,628	193,021	1,959	97,790
1974	3,972,980	204,271	1,748	98,673
1975	4,160,623	213,689	1,800	97,034
1976	4,315,925	211,865	1,511	83,736
1977	4,562,903	218,567	1,420	95,664
1978	4,725,546	186,363	1,450	94,979

(Cont'd)

Table 2.19 Licensed Drivers, Total Accidents, Persons Killed and Injured Continued

Year	Licensed Drivers	Total Accidents	Persons Killed	Persons Injured
1979	4,858,351	197,196	1,560	101,321
1980	4,993,531	196,501	1,508	101,367
1981	5,123,177	198,372	1,445	100,321
1982	5,247,198	187,943	1,138	92,815
1983	5,380,259	181,999	1,204	91,706
1984	5,513,911	194,782	1,132	97,230
1985	5,660,422	189,750	1,191	109,169
1986	5,817,799	187,286	1,102	108,839
1987	5,978,105	203,431	1,229	121,089
1988	6,118,112	228,398	1,237	118,158
1989	6,290,424	247,038	1,286	120,652
1990	6,448,883	220,188	1,120	101,575
1991	6,574,231	213,669	1,102	90,519

Despite the fact that number of licensed drivers continues to increase, the number of fatalities was the lowest since 1986. Injuries are at the lowest level since 1976.

Table 2.20 Original Licences Issued 1987-1991

Year	Original Licences
1987	257,372
1988	255,211
1989	279,814
1990	267,894
1991	252,821

Table 2.21 Temporary Licence Permits Issued for Class L's and Class R's 1987 - 1991

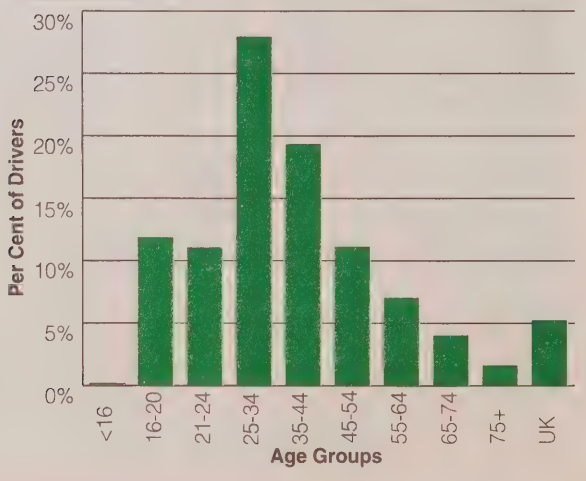
Year	Licence Permits	
	L	R
1987	348,866	38,426
1988	307,748	31,098
1989	320,921	27,167
1990	301,569	24,828
1991	324,418	27,740

Table 2.22 **Driver Age Groups - Number Licensed, Accident Involvement and Per Cent Involved in Accidents 1991**

Drivers Age	Drivers Licensed			Drivers Involved in Accidents *			% of Drivers of Each Age Involved in Accidents		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 16	-	-	-	467	120	**587**	-	-	-
16	21,129	16,494	**37,623**	3,834	2,121	**5,955**	18.1	12.9	**15.8**
17	44,359	36,059	**80,418**	5,636	2,957	**8,593**	12.7	8.2	**10.7**
18	52,232	43,000	**95,232**	6,445	3,125	**9,570**	12.3	7.3	**10.0**
19	58,515	47,796	**106,311**	6,822	3,036	**9,858**	11.7	6.4	**9.3**
20	63,805	53,051	**116,856**	7,083	3,187	**10,270**	11.1	6.0	**8.8**
21-24	277,519	233,556	**511,075**	28,998	12,294	**41,292**	10.4	5.3	**8.1**
25-34	896,240	777,262	**1,673,502**	73,179	31,021	**104,200**	8.2	4.0	**6.2**
35-44	791,047	710,718	**1,501,765**	48,173	24,180	**72,353**	6.1	3.4	**4.8**
45-54	557,372	460,993	**1,018,365**	29,091	12,733	**41,824**	5.2	2.8	**4.1**
55-64	425,827	310,825	**736,652**	19,390	7,156	**26,546**	4.6	2.3	**3.6**
65-74	292,077	215,130	**507,207**	10,594	4,532	**15,126**	3.6	2.1	**3.0**
75 & Over	117,642	71,583	**189,225**	4,383	1,807	**6,190**	3.7	2.5	**3.3**
Unknown	-	-	-	-	-	**19,823**	-	-	-
Total	**3,597,764**	**2,976,467**	**6,574,231**	**244,095**	**108,269**	**372,187**	**6.8**	**3.6**	**5.7**

* This table excludes drivers of non motor vehicles, i.e. bicyclists, snow vehicle operators, etc.

Figure 2.9 **Per Cent of Licensed Drivers Involved in Accidents by Age 1991**



3 the accident

In 1991 there were 213,669 reportable motor vehicle accidents in Ontario. Of these, 153,471 involved only property damage. There were 59,242 accidents in which there were 90,519 persons injured. There were 1,102 fatalities in 956 fatal accidents.

The estimated million kilometres traveled decreased slightly to 72,690 in 1991. The accident rate decreased to 2.9 per million kilometres travelled.

3a. types of accidents

Table 3.1 Class of Accident 1982-1991

Year	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
1982	997	62,956	123,990	**187,943**
1983	1,042	62,735	118,222	**181,999**
1984	1,011	66,101	127,670	**194,782**
1985	1,036	73,840	114,874	**189,750**
1986	951	73,703	112,632	**187,286**
1987	1,085	80,432	121,914	**203,431**
1988	1,076	76,724	150,598	**228,398**
1989	1,106	77,852	168,080	**247,038**
1990	959	65,912	153,317	**220,188**
1991	956	59,242	153,471	**213,669**

The total number of accidents decreased in 1991. Fatal accidents were down 0.3%, personal injury accidents were down 10.1% and property damage accidents increased 0.1%.

Table 3.2 Accident Rate Per One Million Kilometres Travelled 1982-1991

Year	Accident Rate
1982	2.9
1983	2.8
1984	2.9
1985	2.8
1986	2.7
1987	2.8
1988	3.2
1989	3.2
1990	3.0
1991	2.9

Table 3.3 Motor Vehicles Involved in Accidents Based on Initial Impact 1991*

Motor Vehicle in Accident Involving Moveable Objects:	Class of Accident			Total
	Fatal	Personal Injury	Property Damage	
Other Motor Vehicle/s	923	81,315	223,323	**305,561**
Unattended Vehicles	8	944	14,866	**15,818**
Pedestrian	151	4,770	85	**5,006**
Cyclist	28	3,904	415	**4,347**
Railway Train	15	38	46	**99**
Street Car	1	53	287	**341**
Farm Tractor	2	43	88	**133**
Animal Domestic	-	130	455	**585**
Animal Wild	5	333	5,374	**5,712**
Other Moveable Objects	5	61	203	**269**
Sub-total	**1,138**	**91,591**	**245,142**	**337,871**
Fixed Objects:				
Cable Guide Rail	1	115	487	**603**
Concrete Guide Rail	2	174	423	**599**
Steel Guide Rail	8	371	1,308	**1,687**
Pole (Utility Tower)	8	572	1,588	**2,168**
Pole (Sign/Parking Meter)	6	165	815	**986**
Fence/Noise Barrier	1	50	269	**320**
Culvert	-	43	33	**76**
Bridge Support	1	60	141	**202**
Rock Face	-	43	61	**104**
Snow Bank or Drift	1	54	216	**271**
Ditch	16	509	858	**1,383**
Curb	16	811	1,993	**2,820**
Crash Cushion	-	13	25	**38**
Building or Wall	-	59	176	**235**
Water Course	-	7	9	**16**
Construction Marker	-	16	58	**74**
Tree, Shrub or Stump	2	183	462	**647**
Other Fixed Object	5	320	1,308	**1,633**
Sub-total	**67**	**3,565**	**10,230**	**13,862**
Other Events				
Ran Off Road	203	5,141	8,445	**13,789**
Skidding/Sliding	131	6,357	14,541	**21,029**
Jackknifing	1	34	158	**193**
Load Spill	1	14	109	**124**
Fire/Explosion	-	21	549	**570**
Submersion	-	-	4	**4**
Rollover	10	398	410	**818**
Debris on Road	4	96	459	**559**
Debris off Vehicle	6	98	565	**669**
Other Non-Collision Event	35	2,357	4,900	**7,292**
Sub-total	**391**	**14,516**	**30,140**	**45,047**
Total	**1,596**	**109,672**	**285,512**	**396,780**

Table 3.4 Initial Impact Type by Class of Accident 1991

Initial Impact Type	Class of Accident			Total
	Fatal	Personal Injury	Property Damage	
Approaching	206	1,871	2,302	**4,379**
Angle	112	8,013	16,739	**24,864**
Rear End	53	14,532	30,380	**44,965**
Sideswipe	34	3,335	17,013	**20,382**
Turning Movement	67	11,100	32,452	**43,619**
Single Motor Vehicle Unattended	7	905	14,919	**15,831**
Single Motor Vehicle Other	476	19,383	37,725	**57,584**
Other	1	103	1,935	**2,039**
Unknown	-	-	6	6
Total	**956**	**59,242**	**153,471**	**213,669**

Of all vehicles in fatal accidents 71.3% impacted movable objects. Fixed objects accounted for 4.2% and the remaining 24.5% involved other events such as skidding, jackknifing, rollover etc. For vehicles in injury accidents the respective figures were 83.5%, 3.3% and 13.2%. The per centage of vehicles in property damage accidents impacting movable objects was 85.9%, fixed objects was 3 6% and other events was 10.6%.

* Table 3.3 now reflects the number of motor vehicles involved in accidents by initial impact.

3b time and environment

Table 3.5 Month of Occurrence by Class of Accident 1991

Month of Occurrence	Class of Accident						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
January	64	6.7	4,692	7.9	15,583	10.1	**20,339**	**9.5**
February	58	6.1	4,045	6.8	12,375	8.1	**16,478**	**7.7**
March	62	6.5	4,043	6.8	11,375	7.4	**15,480**	**7.2**
April	48	5.0	4,284	7.2	10,087	6.6	**14,419**	**6.7**
May	78	8.1	5,207	8.8	11,389	7.4	**16,674**	**7.8**
June	90	9.4	5,545	9.3	11,062	7.2	**16,697**	**7.8**
July	97	10.1	5,459	9.2	11,518	7.5	**17,074**	**8.0**
August	113	11.8	5,379	9.1	11,818	7.7	**17,310**	**8.1**
September	93	9.7	5,191	8.8	11,769	7.6	**17,053**	**8.0**
October	81	8.5	5,277	8.9	13,975	9.1	**19,333**	**9.0**
November	88	9.2	5,045	8.5	15,238	9.9	**20,371**	**9.5**
December	84	8.8	5,075	8.6	17,282	11.3	**22,441**	**10.5**
Total	**956**	**100.0**	**59,242**	**100.0**	**153,471**	**100.0**	**213,669**	**100.0**

The summer months remain the worst for fatal and personal injury accidents. The greatest number of property damage accidents occur with the onset of winter.

There are a number of reasons for these results. The incidence of drinking and driving are higher in the summer months. Weather conditions in the winter generate more property damage accidents, and it is more likely to be dark when driving home from work during the winter months.

Table 3.6 Day of Week by Class of Accident 1991

Day of Occurrence	Class of Accident						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
Sunday	158	16.5	6,660	11.2	15,972	10.4	**22,790**	**10.7**
Monday	120	12.6	7,717	13.0	20,026	13.0	**27,863**	**13.0**
Tuesday	87	9.1	7,971	13.4	20,980	13.7	**29,038**	**13.6**
Wednesday	129	13.5	8,070	13.6	21,199	13.8	**29,398**	**13.8**
Thursday	132	13.8	9,093	15.3	24,437	15.9	**33,662**	**15.8**
Friday	158	16.5	10,490	17.7	28,059	18.3	**38,707**	**18.1**
Saturday	172	18.0	9,241	15.6	22,798	14.8	**32,211**	**15.1**
Total	**956**	**100.0**	**59,242**	**100.0**	**153,471**	**100.0**	**213,669**	**100.0**

Table 3.7 Hour of Occurrence by Class of Accident 1991

Hour of Occurrence A.M.	Class of Accident						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
12 to 1 a.m.	39	4.0	1,237	2.0	3,028	1.9	**4,304**	**2.0**
1 to 2 a.m.	50	5.2	1,587	2.6	3,595	2.3	**5,232**	**2.4**
2 to 3 a.m.	38	3.9	1,072	1.8	2,461	1.6	**3,571**	**1.6**
3 to 4 a.m.	29	3.0	594	1.0	1,505	0.9	**2,128**	**0.9**
4 to 5 a.m.	17	1.7	439	0.7	1,075	0.7	**1,531**	**0.7**
5 to 6 a.m.	13	1.3	421	0.7	1,360	0.8	**1,794**	**0.8**
Sub total	**186**	**19.4**	**5,350**	**9.0**	**13,024**	**8.4**	**18,560**	**8.6**
6 to 7 a.m.	22	2.3	1,150	1.9	3,154	2.0	**4,326**	**2.0**
7 to 8 a.m.	31	3.2	2,099	3.5	5,829	3.7	**7,959**	**3.7**
8 to 9 a.m.	32	3.3	3,217	5.4	9,092	5.9	**12,341**	**5.7**
9 to 10 a.m.	24	2.5	2,190	3.6	6,499	4.2	**8,713**	**4.0**
10 to 11 a.m.	29	3.0	2,418	4.0	6,856	4.4	**9,303**	**4.3**
11 to 12 noon	40	4.1	2,928	4.9	8,113	5.2	**11,081**	**5.1**
Sub total	**178**	**18.6**	**14,002**	**23.6**	**39,543**	**25.7**	53,723	**25.1**
Hour of Occurrence P.M.								
12 to 1 p.m.	39	4.0	3,480	5.8	8,869	5.7	**12,388**	**5.7**
1 to 2 p.m.	56	5.8	3,343	5.6	8,835	5.7	**12,234**	**5.7**
2 to 3 p.m.	46	4.8	3,507	5.9	9,396	6.1	**12,949**	**6.0**
3 to 4 p.m.	56	5.8	4,834	8.1	11,685	7.6	**16,575**	**7.7**
4 to 5 p.m.	63	6.5	5,144	8.6	12,691	8.2	**17,898**	**8.3**
5 to 6 p.m.	70	7.3	4,653	7.8	11,430	7.4	**16,153**	**7.5**
Sub total	**330**	**34.5**	**24,961**	**42.1**	**62,906**	**40.9**	88,197	**41.2**
6 to 7 p.m.	53	5.5	3,657	6.1	9,011	5.8	**12,721**	**5.9**
7 to 8 p.m.	55	5.7	2,981	5.0	7,101	4.6	**10,137**	**4.7**
8 to 9 p.m.	30	3.1	2,400	4.0	5,814	3.7	**8,244**	**3.8**
9 to 10 p.m.	45	4.7	2,204	3.7	5,297	3.4	**7,546**	**3.5**
10 to 11 p.m.	37	3.8	1,886	3.1	4,522	2.9	**6,445**	**3.0**
11 to 12 midnight	34	3.5	1,601	2.7	4,194	2.7	**5,829**	**2.7**
Sub total	**254**	**26.5**	**14,729**	**24.8**	**35,939**	**23.4**	50,922	**23.8**
Unknown	8	0.8	200	0.3	2,059	1.3	**2,267**	**1.0**
Total	**956**	**100.0**	**59,242**	**100.0**	**153,471**	**100.0**	213,669	100.0

Table 3.8 Statutory Holidays, Holiday Weekends - Fatal Accidents, Persons Killed and Injured 1991

Statutory Holiday	Number of Fatal Accidents	Drivers		Passengers		Others		Total	
		Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
Easter Weekend	18	11	9	8	24	3	2	**22**	**35**
Victoria Day	6	3	5	3	10	2	-	**8**	**15**
Canada Day	13	8	9	5	15	2	-	**15**	**24**
Civic Holiday (Simcoe Day)	15	11	6	7	11	2	-	**20**	**17**
Labour Day	10	4	8	8	16	1	1	**13**	**25**
Thanksgiving Day	13	11	8	4	11	-	-	**15**	**19**
Christmas/Boxing Day	5	4	3	2	8	1	-	**7**	**11**

Figure 3.1 Light Condition by Class of Accident 1991

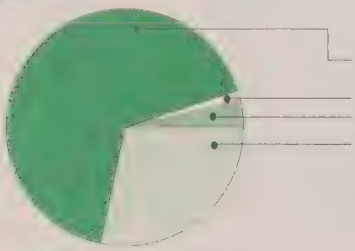


Table 3.9 Light Condition by Class of Accident 1991

Light Condition	Class of Accident						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
Daylight	502	52.5	40,143	67.8	101,528	66.2	**142,173**	**66.5**
Dawn	14	1.5	827	1.4	2,259	1.5	**3,100**	**1.5**
Dusk	28	2.9	2,038	3.4	5,687	3.7	**7,753**	**3.6**
Darkness	410	42.9	16,218	27.4	43,702	28.5	**60,330**	**28.2**
Other	2	0.2	16	0.0	295	0.2	**313**	**0.1**
Total	**956**	**100.0**	**59,242**	**100.0**	**153,471**	**100.0**	**213,669**	**100.0**

Figure 3.2 Visibility by Class of Accidents 1991

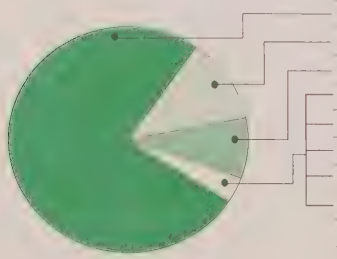


Table 3.10 Visibility by Class of Accident 1991

Visibility	Class of Accident						Total	%
	Fatal	%	Personal Injury	%	Property Damage	%		
Clear	775	81.1	46,350	78.2	114,932	74.9	**162,057**	**75.8**
Rain	83	8.7	7,151	12.1	18,599	12.1	**25,833**	**12.1**
Snow	61	6.4	3,907	6.6	14,551	9.5	**18,519**	**8.7**
Freezing Rain	5	0.5	655	1.1	2,105	1.4	**2,765**	**1.3**
Drifting Snow	7	0.7	440	0.7	1,321	0.9	**1,768**	**0.8**
Strong Wind	3	0.3	128	0.2	351	0.2	**482**	**0.2**
Fog, Mist, Smoke or Dust	19	2.0	546	0.9	1,291	0.8	**1,856**	**0.9**
Other	3	0.3	65	0.1	321	0.2	**389**	**0.2**
Total	**956**	**100.0**	**59,242**	**100.0**	**153,471**	**100.0**	**213,669**	**100.0**

3c. the accident location

Table 3.11 Road Jurisdiction by Class of Accident 1991

Road Jurisdiction	Class of Accident			Total
	Fatal	Personal Injury	Property Damage	
Municipal (Excl. Twp. Rd.)	207	29,481	82,963	**112,651**
Provincial Highway	427	13,017	30,790	**44,234**
Township	83	3,084	7,165	**10,332**
County or District	98	2,701	5,683	**8,482**
Regional Municipality	137	10,669	26,150	**36,956**
Federal	4	201	564	**769**
Other	-	89	156	**245**
Total	**956**	**59,242**	**153,471**	**213,669**

Table 3.12 Road Jurisdiction for All Accidents 1982-1991

Road Jurisdiction	Year										Total
	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	
Municipal	126,876	119,230	136,456	128,809	120,799	135,949	159,228	139,926	117,218	112,651	**1,297,142**
Provincial	33,246	32,667	36,110	38,976	38,002	40,825	44,772	48,944	43,513	44,234	**401,289**
Township	11,476	11,330	11,628	10,562	10,092	10,460	12,277	11,882	10,684	10,332	**110,723**
County or District	5,669	5,258	6,248	7,002	7,027	7,024	7,527	8,773	8,582	8,482	**71,592**
Regional Municipality	9,722	12,592	3,393	3,166	10,185	7,863	3,620	36,237*	39,004	36,956	**162,738**
Federal**	-	-	-	-	-	-	748	940	913	769	**3,370**
Other	954	922	947	1,235	1,181	1,310	226	336	274	245	**7,630**
Total	**187,943**	**181,999**	**194,782**	**189,750**	**187,286**	**203,431**	**228,398**	**247,038**	**220,188**	**213,669**	**2,054,484**

*Some accidents occurring on regional municipal roads were recorded as occurring on municipal roads prior to 1989.

**Since January 1, 1988 the accident report form allows the recording of jurisdiction for federal roads.

Figure 3.3 Road Location by Class of Accident 1991

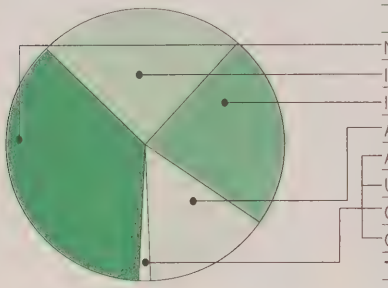


Table 3.13 Road Location by Class of Accident 1991

Road Location	Class of Accident						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
Non-intersection	614	64.2	21,014	35.5	57,233	37.3	**78,861**	**36.9**
Intersection Related	75	7.8	13,949	23.5	37,350	24.3	**51,374**	**24.0**
In Intersection	150	15.7	16,608	28.0	32,666	21.3	**49,424**	**23.1**
At/Near Private Drive	83	8.7	6,888	11.6	24,293	15.8	**31,264**	**14.6**
At Railway	16	1.7	121	0.2	291	0.2	**428**	**0.2**
Underpass or Tunnel	2	0.2	103	0.2	245	0.2	**350**	**0.2**
Overpass or Bridge	11	1.2	423	0.7	965	0.6	**1,399**	**0.6**
Other	5	0.5	136	0.2	428	0.3	**569**	**0.3**
Total	**956**	**100.0**	**59,242**	**100.0**	**153,471**	**100.0**	**213,669**	**100.0**

Figure 3.4 Road Surface Condition by Class of Accident 1991

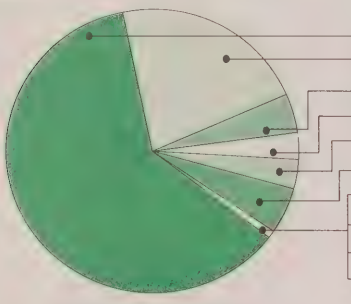


Table 3.14 Road Surface Condition by Class of Accident 1991

Road Surface Condition	Class of Accident						Total	%
			Personal		Property			
	Fatal	%	Injury	%	Damage	%		
Dry	674	70.5	38,700	65.3	91,856	59.8	**131,230**	**61.4**
Wet	167	17.5	12,850	21.7	33,560	21.9	**46,577**	**21.8**
Loose Snow	29	3.0	1,881	3.2	7,331	4.8	**9,241**	**4.3**
Slush	22	2.3	1,403	2.4	4,931	3.2	**6,356**	**3.0**
Packed Snow	19	2.0	1,381	2.3	5,794	3.8	**7,194**	**3.4**
Ice	30	3.1	2,425	4.1	8,580	5.6	**11,035**	**5.2**
Mud	1	0.1	22	-	79	0.1	**102**	**-**
Loose Sand or Gravel	4	0.4	434	0.7	899	0.6	**1,337**	**0.6**
Spilled Liquid	-	-	31	0.1	45	-	**76**	**-**
Other	10	1.0	115	0.2	396	0.2	**521**	**0.2**
Total	**956**	**100.0**	**59,242**	**100.0**	**153,471**	**100.0**	**213,669**	**100.0**

4 place of accident in Ontario

Table 4.1 Place of Accident - Estimated Population, Class of Accident, Persons Killed, Persons Injured and Vehicle Registrations 1991

Location		Estimated Population (1991)*	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Persons Injured	Motor Vehicle Registrations
Ontario		**9,624,670**	**213,669**	**956**	**59,242**	**153,471**	**1,102**	**90,519**	**6,190,218**
Blind River, t		3,913	44	0	16	28	0	27	
Elliot Lake, c	M	13,391	119	0	22	97	0	33	
Sault Ste. Marie, c	M	79,366	1,702	3	484	1,215	3	746	
Thessalon, t		1,452	6	0	1	5	0	1	
Provincial Highway		-	687	15	197	475	16	334	
Other Areas		19,831	272	2	71	199	2	106	
Algoma		**116,501**	**2,830**	**20**	**791**	**2,019**	**21**	**1,247**	**84,592**
Brantford, c	M	31,760	1,324	3	413	908	4	614	
Brantford, twp		6,327	2	0	0	2	0	0	
Burford, twp		1,995	1	0	1	0	0	1	
Paris, t	M	8,242	104	1	33	70	1	46	
Provincial Highway		-	318	5	112	201	5	204	
Other Areas		57,055	335	3	110	222	3	174	
Brant		**105,339**	**2,084**	**12**	**669**	**1,403**	**13**	**1,039**	**70,869**
Amabel, twp		3,548	7	0	1	6	0	1	
Brant, twp		3,255	2	0	1	1	0	1	
Carrick, twp		2,308	1	0	0	1	0	0	
Chesley, t		1,855	17	0	2	15	0	2	
Kincardine, t	M	6,227	61	0	10	51	0	12	
Port Elgin, t	M	2,731	87	0	24	63	0	46	
Southhampton, t	M	2,940	36	0	10	26	0	18	
Walkerton, t	M	4,788	64	0	8	56	0	9	
Wiarton, t		2,237	14	0	3	11	0	3	
Provincial Highway		-	236	2	77	157	2	142	
Other Areas		31,194	590	7	175	408	10	326	
Bruce		**61,083**	**1,115**	**9**	**311**	**795**	**12**	**560**	**48,517**
Cochrane, t		4,403	56	0	9	47	0	15	
Hearst, t		5,962	69	1	10	58	1	11	
Iroquois Falls, t		5,823	67	0	11	56	0	18	
Kapuskasing, t	M	10,328	117	0	19	98	0	23	
Smooth Rock Falls, t		2,004	17	0	7	10	0	8	
Timmins, c	M	46,697	700	2	170	528	2	258	
Provincial Highway		-	628	10	191	427	11	292	
Other Areas		10,213	217	2	72	143	2	110	
Cochrane		**85,430**	**1,871**	**15**	**489**	**1,367**	**16**	**735**	**58,435**
Amaranth, twp		3,146	3	0	1	2	0	1	
East Garafraxa, twp		2,037	1	0	0	1	0	0	
Melancthon, twp		2,320	1	0	1	0	0	1	

Legend t town; c city; vl village; twp township

Other Areas - Jurisdictions with less than 1,500 population

M Municipal Police Force

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Mono, twp		5,766	5	0	1	4	0	2	
Mulmur, twp		2,483	1	0	0	1	0	0	
Orangeville, t	M	17,227	344	2	54	288	2	85	
Shelbourne, t	M	3,352	35	0	6	29	0	6	
Provincial Highway		-	286	1	113	172	2	209	
Other Areas		2,445	321	4	118	199	4	214	
Dufferin		**38,776**	**997**	**7**	**294**	**696**	**8**	**518**	**27,581**
Morrisburg, vl		2,301	21	0	3	18	0	3	
Winchester, twp		3,279	28	0	4	24	0	4	
Winchester, vl		2,261	3	0	0	3	0	0	
Provincial Highway		-	182	3	78	101	3	127	(Veh. Reg.
Other Areas		12,266	163	3	45	115	3	75	included in
Dundas		**20,107**	**397**	**6**	**130**	**261**	**6**	**209**	Stormont)
Ajax, t		54,542	543	1	139	403	2	235	
Brock, twp		10,530	63	0	14	49	0	29	
Newcastle, t		47,262	468	6	126	336	7	204	
Oshawa, c		123,681	2,513	3	674	1,836	3	961	
Pickering, t		64,946	729	5	178	546	7	254	
Scugog, twp		17,053	178	4	49	125	5	76	
Uxbridge, twp		13,241	168	2	53	113	3	88	
Whitby, t		59,152	967	5	277	685	6	414	
Provincial Highway		-	1,814	8	459	1,347	9	804	
Other Areas		-	621	5	170	446	5	249	
Durham	**M**	**390,407**	**8,064**	**39**	**2,139**	**5,886**	**47**	**3,314**	**254,063**
Aldborough, twp		2,628	1	0	0	1	0	0	
Aylmer, t	M	5,965	75	0	10	65	0	13	
Dunwich, twp		2,191	4	0	1	3	0	1	
Malahide, twp		5,587	1	0	1	0	0	1	
Port Stanley, vl		2,033	21	0	9	12	0	14	
St. Thomas, c	M	29,558	432	1	142	289	1	202	
Yarmouth, twp		7,605	1	0	1	0	0	2	
Provincial Highway		-	381	8	141	232	9	252	
Other Areas		17,157	427	5	153	269	5	256	
Elgin		**72,724**	**1,343**	**14**	**458**	**871**	**15**	**741**	**54,767**
Amherstburg, t	M	8,808	76	2	36	38	2	53	
Anderdon, twp		5,469	5	0	1	4	0	2	
Belle River, t		4,172	22	0	14	8	0	17	
Colchester South, twp	M	5,262	6	0	0	6	0	0	
Essex, t	M	6,601	70	0	24	46	0	27	
Harrow, t		2,510	18	0	6	12	0	8	
Kingsville, t	M	5,779	32	0	14	18	0	25	
Leamington, t	M	13,984	373	0	52	321	0	69	
Maidstone, twp		9,755	2	0	1	1	0	1	
Malden, twp		3,099	3	0	0	3	0	0	
Mersea, twp	M	8,355	7	0	1	6	0	1	
Rochester, twp		4,382	2	0	1	1	0	1	
St. Clair Beach, vl	M	3,542	11	0	5	6	0	6	

Table 4.1 Continued

Location	Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Sandwich South, twp	5,554	1	0	1	0	0	2	
Tecumseh, t	10,432	104	0	40	64	0	68	
Windsor, c M	190,954	4,277	4	1,281	2,992	4	1,843	
Provincial Highway	-	572	6	209	357	6	386	
Other Areas	37,330	874	11	309	554	11	483	
Essex	**325,988**	**6,455**	**23**	**1,995**	**4,437**	**23**	**2,992**	**201,266**
Kingston, c M	60,930	1,414	2	388	1,024	2	541	
Kingston, twp	37,412	25	0	5	20	0	5	
Loughborough, twp	4,133	3	0	1	2	0	2	
Pittsburg, twp	11,416	2	0	0	2	0	0	
Portland, twp	4,345	3	0	2	1	0	2	
Storrington, twp	3,552	2	0	1	1	0	1	
Provincial Highway	-	719	6	214	499	12	349	
Other Areas	7,679	766	7	198	561	8	286	
Frontenac	**129,467**	**2,934**	**15**	**809**	**2,110**	**22**	**1,186**	**82,782**
Alexandria, t M	3,194	42	1	8	33	1	11	
Charlottenburg, twp	7,499	2	0	0	2	0	0	
Kenyon, twp	3,286	3	0	3	0	0	3	
Lancaster, twp	3,447	8	0	1	7	0	1	
Provincial Highway	-	236	4	84	148	5	139	(Veh. Reg.
Other Areas	4,483	211	7	57	147	7	92	included in
Glengarry	**21,909**	**502**	**12**	**153**	**337**	**13**	**246**	**Stormont)**
Augusta, twp	7,115	1	0	0	1	0	0	
Cardinal, vl M	1,483	6	0	0	6	0	0	
Edwardsburgh, twp	4,390	1	0	0	1	0	0	
Kemptville, t M	2,437	19	0	2	17	0	5	
Oxford On Rideau, twp	5,352	1	0	1	0	0	1	
Prescott, t M	4,189	60	0	16	44	0	19	
Provincial Highway	-	288	4	77	207	4	146	(Veh. Reg.
Other Areas	4,166	344	6	75	263	6	106	included
Grenville	**29,132**	**720**	**10**	**171**	**539**	**10**	**277**	**in Leeds)**
Collingwood, twp	2,915	3	0	1	2	0	1	
Durham, t M	2,511	47	0	12	35	0	13	
Egremont, twp	2,264	1	0	0	1	0	0	
Hanover, t M	6,487	89	0	25	64	0	34	
Keppel, twp	3,437	1	0	0	1	0	0	
Meaford, t M	4,182	37	1	7	29	1	14	
Normandy, twp	2,592	2	0	1	1	0	1	
Owen Sound, c M	20,809	412	2	105	305	2	155	
St. Vincent, twp	2,217	1	0	0	1	0	0	
Sarawak, twp	2,743	1	0	0	1	0	0	
Sullivan, twp	2,536	1	0	0	1	0	0	
Sydenham, twp	2,890	1	0	0	1	0	0	
Thornbury, t M	1,566	12	0	3	9	0	4	
Provincial Highway	-	401	6	143	252	6	284	
Other Areas	22,862	657	9	204	444	12	337	
Grey	**80,011**	**1,666**	**18**	**501**	**1,147**	**21**	**843**	**54,395**

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Delhi, twp		14,930	171	3	46	122	4	68	
Dunnville, t		11,766	179	2	45	132	2	68	
Haldimand, t		19,880	87	0	25	62	0	31	
Nanticoke, c		21,759	219	5	69	145	6	107	
Norfolk, twp		10,883	55	1	23	31	1	39	
Simcoe, t		14,715	340	0	79	261	0	114	
Provincial Highway		-	385	8	135	242	8	234	
Other Areas		-	468	6	137	325	6	200	
Haldimand-Norfolk	**M**	**93,933**	**1,904**	**25**	**559**	**1,320**	**27**	**861**	**73,706**
Anson,Hindon & Minden, twp		2,902	6	0	3	3	0	3	
Dysart Et Al, twp		4,346	9	0	2	7	0	3	
Provincial Highway		-	237	1	50	186	1	85	
Other Areas		5,781	230	2	52	176	2	78	
Haliburton		**13,029**	**482**	**3**	**107**	**372**	**3**	**169**	**10,963**
Burlington, c		125,260	1,382	2	373	1,007	5	538	
Halton Hills, t		35,496	533	4	157	372	5	231	
Milton, t		30,138	639	3	165	471	3	265	
Oakville, t		109,718	1,154	3	261	890	6	411	
Provincial Highway		-	1,852	12	526	1,314	14	854	
Other Areas		-	74	0	18	56	0	28	
Halton	**M**	**300,612**	**5,634**	**24**	**1,500**	**4,110**	**33**	**2,327**	**163,654**
Ancaster, t		22,107	188	1	84	103	1	133	
Dundas, t		21,632	190	0	64	126	0	111	
Flamborough, t		29,281	192	2	70	120	2	108	
Glanbrook, twp		9,691	57	1	24	32	1	38	
Hamilton, c		316,897	4,883	13	1,880	2,990	13	2,736	
Stoney Creek, c		49,204	392	4	164	224	4	266	
Provincial Highway		-	1,411	13	410	988	16	727	
Other Areas		-	103	0	34	69	0	45	
Hamilton-Wentworth	**M**	**448,812**	**7,416**	**34**	**2,730**	**4,652**	**37**	**4,164**	**257,579**
Bancroft, vl		2,335	38	0	7	31	0	11	
Belleville, c	M	35,169	931	2	209	720	2	295	
Deseronto, t	M	1,810	14	0	4	10	0	4	
Frankford, vl		2,051	13	1	4	8	1	5	
Hungerford, twp		2,880	2	0	1	1	0	3	
Madoc, twp		1,742	3	0	2	1	0	2	
Sidney, twp		16,338	9	0	3	6	0	4	
Stirling, vl	M	2,050	16	0	6	10	0	9	
Thurlow, twp		7,267	2	0	0	2	0	0	
Trenton, c	M	16,065	365	0	102	263	0	140	
Tweed, vl		1,510	21	0	5	16	0	8	
Tyendinaga, twp		2,990	2	0	1	1	0	2	
Provincial Highway		-	790	16	291	483	17	516	
Other Areas		18,192	640	6	210	424	6	315	
Hastings		**110,399**	**2,846**	**25**	**845**	**1,976**	**26**	**1,314**	**86,673**

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Ashfield, twp		1,747	1	0	0	1	0	0	
Clinton, t	M	3,183	49	0	6	43	0	9	
Exeter, t	M	4,264	54	0	15	39	0	19	
Goderich, t	M	7,399	138	0	30	108	0	42	
Goderich, twp		2,494	7	0	3	4	0	3	
Howick, twp		3,429	2	0	1	1	0	1	
Hullett, twp		1,777	1	0	1	0	0	1	
Seaforth, t	M	2,285	29	1	10	18	1	13	
Tuckersmith, twp		3,078	1	0	0	1	0	0	
Turnberry, twp		1,579	1	0	1	0	0	1	
Wingham, t	M	3,003	42	0	7	35	0	7	
Provincial Highway		-	274	5	92	177	5	152	
Other Areas		24,304	374	4	104	266	4	192	
Huron		**58,542**	**973**	**10**	**270**	**693**	**10**	**440**	**39,012**
Dryden, t	M	6,257	102	0	9	93	0	13	
Ignace, twp		1,770	2	0	1	1	0	1	
Jaffray Melick, t		3,862	13	0	3	10	0	7	
Keewatin, t		2,052	20	0	6	14	0	6	
Kenora, t	M	9,570	275	0	46	229	0	66	
Red Lake, twp		2,084	1	0	0	1	0	0	
Sioux Lookout, t		3,082	73	0	17	56	0	24	
Provincial Highway		-	713	7	160	546	10	290	
Other Areas		6,903	232	0	56	176	0	84	
Kenora		**35,580**	**1,431**	**7**	**298**	**1,126**	**10**	**491**	**35,378**
Blenheim, t		4,570	51	1	14	36	1	30	
Chatham, c	M	42,800	883	1	262	620	1	363	
Chatham, twp		6,340	3	0	1	2	0	2	
Dover, twp		4,005	1	0	0	1	0	0	
Dresden, t	M	2,626	28	0	10	18	0	13	
Harwich, twp		5,993	2	0	1	1	0	1	
Raleigh, twp		5,451	3	0	0	3	0	0	
Ridgetown, t		3,204	24	0	14	10	0	17	
Romney, twp		1,937	1	0	0	1	0	0	
Tilbury, t	M	4,294	65	0	13	52	0	15	
Tilbury East, twp		2,298	1	0	0	1	0	0	
Wallaceburg, t	M	11,684	135	0	33	102	0	40	
Wheatly, vl		1,533	12	0	3	9	0	3	
Provincial Highway		-	359	3	135	221	8	236	
Other Areas		9,880	501	7	185	309	11	269	
Kent		**106,615**	**2,069**	**12**	**671**	**1,386**	**21**	**989**	**76,930**
Bosanquet, twp		4,901	3	0	1	2	0	1	
Brooke, twp		1,862	1	0	0	1	0	0	
Enniskillen, twp		3,117	4	0	1	3	0	1	
Forest, t		2,769	19	0	5	14	0	10	
Moore, twp		10,432	2	0	1	1	0	2	
Petrolia, t	M	4,510	44	0	4	40	0	5	
Plympton, twp		5,116	1	1	0	0	1	0	

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Point Edward, vl	M	2,323	21	0	5	16	0	7	
Sarnia, c	M	72,684	1,475	4	315	1,156	5	471	
Sombra, twp		4,053	2	0	1	1	0	3	
Warwick, twp		2,465	1	0	1	0	0	1	
Wyoming, vl		1,988	9	0	1	8	0	4	
Provincial Highway		-	360	5	116	239	6	195	
Other Areas		7,783	527	3	173	351	3	281	
Lambton		**124,003**	**2,469**	**13**	**624**	**1,832**	**15**	**981**	**87,605**
Almonte, t		4,249	29	0	10	19	0	14	
Bathurst, twp		2,820	1	0	0	1	0	0	
Carleton Place, t	M	7,080	108	0	18	90	0	28	
Pakenham, twp		1,767	1	0	1	0	0	2	
Perth, t	M	5,438	175	0	32	143	0	51	
Smith Falls, t	M	9,235	220	0	40	180	0	61	
Provincial Highway		-	312	5	98	209	6	163	
Other Areas		22,400	438	0	138	300	0	212	
Lanark		**52,989**	**1,284**	**5**	**337**	**942**	**6**	**531**	**8,825**
Brockville, c	M	21,207	461	0	104	357	0	153	
Elizabethtown, twp		7,021	1	0	0	1	0	0	
Front of Leeds Lansdowne, twp		4,638	4	0	2	2	0	2	
Front of Yonge, twp		2,239	1	0	0	1	0	0	
Gananoque, t	M	4,988	80	1	18	61	1	23	
South Crosby, twp		1,649	2	0	2	0	0	3	
South Elmsley, twp		3,080	3	0	1	2	0	1	(Veh. Reg.
Provincial Highway		-	499	10	171	318	15	293	includes
Other Areas		12,801	389	3	118	268	3	179	Grenville)
Leeds		**57,623**	**1,440**	**14**	**416**	**1,010**	**19**	**654**	**62,080**
Ernestown, twp		11,100	2	0	1	1	0	1	
Napanee, t		4,849	128	0	30	98	0	36	
Provincial Highway		-	383	9	125	249	12	255	
Other Areas		18,481	313	4	101	208	4	145	
Lennox & Addington		**34,430**	**826**	**13**	**257**	**556**	**16**	**437**	**22,531**
Provincial Highway		-	107	2	35	70	3	58	
Other Areas		7,069	131	3	43	85	3	68	
Manitoulin		**7,069**	**238**	**5**	**78**	**155**	**6**	**126**	**7,893**
Biddulph, twp		2,138	1	0	0	1	0	0	
Caradoc, twp		6,043	3	0	2	1	0	2	
Delaware, twp		2,547	1	0	0	1	0	0	
Ekfrid, twp		2,141	1	0	1	0	0	1	
Glencoe, vl		2,062	12	0	4	8	0	6	
London, c	M	302,679	5,570	12	1,973	3,585	13	2,849	
London, twp		5,633	34	0	6	28	0	7	
Lucan, vl		1,810	15	1	3	11	1	3	
North Dorchester, twp		7,850	3	0	1	2	0	3	
Strathroy, t	M	10,370	100	0	32	68	0	53	
Westminster, t		6,563	31	0	13	18	0	16	

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
West Nissouri, twp		3,442	1	0	0	1	0	0	
Provincial Highway		-	785	15	268	502	18	477	
Other Areas		16,935	961	7	325	629	7	506	
Middlesex		**370,213**	**7,518**	**35**	**2,628**	**4,855**	**39**	**3,923**	**233,861**
Bracebridge, t		10,912	142	1	43	98	1	61	
Gravenhurst, t		8,953	113	1	26	86	1	43	
Huntsville, t		13,404	93	1	23	69	1	30	
Lake of Bays, twp		2,526	2	0	1	1	0	1	
Muskoka Lakes, twp		5,236	48	0	14	34	0	17	
Provincial Highway		-	632	8	186	438	10	331	
Other Areas		-	401	4	103	294	4	145	
Muskoka		**43,049**	**1,431**	**15**	**396**	**1,020**	**17**	**628**	**35,411**
Fort Erie, t		25,495	428	3	126	299	4	186	
Grimsby, t		18,057	212	2	69	141	3	102	
Lincoln, t		16,523	213	0	73	140	0	106	
Niagara on the Lake, t		12,410	151	0	46	105	0	70	
Niagara Falls, c		74,633	1,719	5	411	1,303	5	606	
Pelham, t		13,319	177	1	33	143	1	38	
Port Colborne, c		18,627	296	2	75	219	2	108	
St. Catherines, c		124,689	2,451	6	555	1,890	6	817	
Thorold, c		17,542	259	2	67	190	2	105	
Wainfleet, twp		6,040	59	2	8	49	2	13	
Welland, c		47,525	1,056	2	233	821	2	327	
West Lincoln, twp		10,536	102	0	30	72	0	43	
Provincial Highway		-	1,636	13	507	1,116	13	897	
Other Areas		-	451	1	139	311	1	218	
Niagara	**M**	**385,396**	**9,210**	**39**	**2,372**	**6,799**	**41**	**3,636**	**262,488**
Caldwell, twp		1,583	2	0	0	2	0	0	
East Ferris, twp		3,919	1	0	0	1	0	0	
Mattawa, t		2,413	17	1	6	10	1	9	
North Bay, c	M	54,611	836	4	216	616	4	302	
Springer, twp		2,445	1	0	0	1	0	0	
Sturgeon Falls, t		5,952	111	0	24	87	0	37	
Provincial Highway		-	684	2	233	449	2	381	
Other Areas		7,676	216	0	63	153	0	94	
Nipissing		**78,599**	**1,868**	**7**	**542**	**1,319**	**7**	**823**	**54,366**
Brighton, twp		3,285	5	0	0	5	0	0	
Brighton, t		4,108	17	0	2	15	0	2	
Campbellford, t		3,395	35	0	10	25	0	11	
Cobourg, t	M	14,643	207	0	62	145	0	87	
Colborne, vl		1,971	14	0	4	10	0	4	
Cramahe, twp		2,853	3	0	2	1	0	2	
Haldimand, twp		4,041	2	0	0	2	0	0	
Hamilton, twp		9,211	2	0	0	2	0	0	
Murray, twp		6,520	1	0	0	1	0	0	
Percy, twp		3,082	4	0	2	2	0	3	

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Port Hope, t	M	11,198	85	0	22	63	0	37	
Seymour, twp		4,036	2	0	0	2	0	0	
Provincial Highway		-	733	16	256	461	21	469	
Other Areas		5,626	497	4	173	320	5	259	
Northumberland		**73,969**	**1,607**	**20**	**533**	**1,054**	**26**	**874**	**50,464**
Cumberland, twp		39,520	166	0	51	115	0	87	
Gloucester, c	M	99,277	1,013	5	222	786	6	341	
Goulbourn, twp		15,573	166	2	60	104	2	97	
Kanata, c		35,866	379	0	96	283	0	164	
Nepean, c	M	105,582	1,510	1	376	1,133	1	553	
Osgoode, twp		13,541	121	0	32	89	0	48	
Ottawa, c	M	308,366	7,439	8	2,173	5,258	9	2,973	
Rideau, twp		11,420	141	3	40	98	3	64	
Rockcliffe Park, vl		2,328	16	0	2	14	0	2	
Vanier, c		18,053	348	0	102	246	0	129	
West Carleton, twp		14,366	124	0	45	79	0	69	
Provincial Highway		-	1,728	9	511	1,208	11	799	
Other Areas		-	980	3	264	713	3	387	
Ottawa-Carleton		**663,898**	**14,131**	**31**	**3,974**	**10,126**	**35**	**5,713**	**374,051**
Ingersoll, t	M	8,935	140	0	30	110	0	37	
Norwich, twp	M	9,991	18	0	4	14	0	8	
S West Oxford, twp		8,283	9	0	2	7	0	3	
Tillsonburg, t	M	11,718	151	0	41	110	0	51	
Woodstock, c	M	29,029	648	0	156	492	0	218	
Zorra, twp		8,057	2	0	2	0	0	2	
Provincial Highway		-	547	7	197	343	9	343	
Other Areas		13,993	502	5	165	332	5	265	
Oxford		**90,006**	**2,017**	**12**	**597**	**1,408**	**14**	**927**	**65,482**
McDougall, twp		1,995	4	0	2	2	0	2	
North Himsworth, twp		2,913	1	0	0	1	0	0	
Perry, twp		1,896	1	0	1	0	0	2	
Provincial Highway		-	660	12	204	444	14	370	
Other Areas		25,666	480	2	109	369	2	188	
Parry Sound		**32,470**	**1,146**	**14**	**316**	**816**	**16**	**562**	**31,003**
Brampton, c		217,892	3,016	9	721	2,286	9	1,083	
Caledon, t		33,538	644	8	175	461	9	283	
Mississauga, c		434,093	6,195	9	1,485	4,701	9	2,200	
Provincial Highway		-	2,700	19	826	1,855	23	1,386	
Other Areas		-	249	0	65	184	0	105	
Peel	**M**	**685,523**	**12,804**	**45**	**3,272**	**9,487**	**50**	**5,057**	**446,375**
Listowel, t	M	5,382	92	0	17	75	0	18	
Mitchell, t	M	3,366	47	0	10	37	0	13	
St. Marys, t	M	5,482	63	0	9	54	0	9	
Stratford, c	M	27,311	499	1	137	361	1	185	
Provincial Highway		-	243	2	81	160	3	142	
Other Areas		27,709	361	1	142	218	3	220	
Perth		**69,250**	**1,305**	**4**	**396**	**905**	**7**	**587**	**46,657**

Table 4.1 Continued

Location	Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Belmont & Methuen, twp	2,794	3	0	1	2	0	1	
Douro, twp	3,514	1	0	0	1	0	0	
Dummer, twp	2,634	1	0	0	1	0	0	
Harvey, twp	2,755	1	0	1	0	0	1	
Lakefield, vl M	2,456	27	0	11	16	0	23	
Peterborough, c M	67,823	1,148	2	385	761	2	583	
Provincial Highway	-	478	12	143	323	12	318	
Other Areas	34,012	672	6	176	490	6	275	
Peterborough	**115,988**	**2,331**	**20**	**717**	**1,594**	**20**	**1,201**	**80,139**
Alfred, twp	1,999	3	0	0	3	0	0	
East Hawkesbury, twp	3,090	5	0	1	4	0	1	
Hawkesbury, t M	9,547	230	0	32	198	0	48	
L'Orignal, vl	2,052	10	0	2	8	0	4	
Plantagenet North, twp	3,003	1	0	0	1	0	0	
Plantagenet South, twp	1,650	2	0	0	2	0	0	
Vankleek Hill, t	1,940	15	0	4	11	0	5	
W Hawkesbury, twp	2,862	2	0	0	2	0	0	(Veh. Reg.
Provincial Highway	-	206	3	70	133	3	129	includes
Other Areas	5,431	247	2	93	152	2	156	Russell)
Prescott	**31,574**	**721**	**5**	**202**	**514**	**5**	**343**	**53,025**
Hallowell, twp	4,168	3	0	0	3	0	0	
Picton, t	4,067	76	0	19	57	0	22	
Provincial Highway	-	97	2	35	60	3	61	
Other Areas	14,030	280	1	78	201	1	106	
Prince Edward	**22,265**	**456**	**3**	**132**	**321**	**4**	**189**	**16,975**
Atikokan, twp M	3,805	1	0	0	1	0	0	
Fort Frances, t M	8,682	213	0	37	176	0	57	
Provincial Highway	-	215	4	34	177	4	53	
Other Areas	6,316	110	2	21	87	3	28	
Rainy River	**18,803**	**539**	**6**	**92**	**441**	**7**	**138**	**16,373**
Arnprior, t	6,095	72	0	21	51	0	29	
Deep River, t M	4,175	17	0	3	14	0	3	
McNab, twp	5,233	1	0	0	1	0	0	
Pembroke, c M	13,379	345	1	106	238	1	165	
Pembroke, twp	1,757	2	0	0	2	0	0	
Petawawa, twp	8,145	1	0	0	1	0	0	
Petawawa, vl	5,291	7	0	2	5	0	3	
Renfrew, t M	7,837	91	1	27	63	1	41	
Wilberforce, twp	1,684	1	0	0	1	0	0	
Provincial Highway	-	551	13	189	349	15	325	
Other Areas	33,739	571	5	172	394	5	261	
Renfrew	**87,335**	**1,659**	**20**	**520**	**1,119**	**22**	**827**	**63,925**
Casselman, vl	2,341	10	0	2	8	0	2	
Clarence, twp	8,834	5	0	2	3	0	2	
Rockland, t	6,448	53	0	10	43	0	14	(Veh. Reg.
Provincial Highway	-	105	1	32	72	1	45	included in
Other Areas	16,057	292	3	98	191	3	158	Prescott)
Russell	**33,680**	**465**	**4**	**144**	**317**	**4**	**221**	

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Adjala, twp		4,356	1	0	1	0	0	4	
Barrie, c	M	60,870	1,265	2	310	953	2	431	
Bradford W. Gwillim.,t	M	16,585	179	0	44	135	0	59	
Collingwood, t	M	12,667	239	0	53	186	0	84	
Elmvale, vl		1,691	19	0	4	15	0	6	
Essa, twp		13,142	7	0	2	5	0	6	
Flos, twp		2,898	4	0	1	3	0	1	
Innisfil, t	M	20,618	134	0	38	96	0	58	
Medonte, twp		5,581	1	0	1	0	0	2	
Midland, t	M	13,114	234	1	75	158	1	105	
Orillia, c	M	24,062	536	0	111	425	0	166	
Orillia, twp		7,934	4	0	0	4	0	0	
Penetanguishene, t	M	6,051	105	0	20	85	0	24	
Port McNicoll, vl		2,046	12	0	4	8	0	6	
Stayner, t		3,173	36	0	9	27	0	14	
Sunnidale, twp		2,718	2	0	0	2	0	0	
Tay, twp		6,289	6	0	2	4	0	6	
New Tecumseth, t	M	19,282	108	0	26	82	0	27	
Tiny, twp		8,552	6	0	1	5	0	1	
Vespra, twp		7,604	3	0	1	2	0	3	
Wasaga Beach		5,798	129	0	38	91	0	62	
Provincial Highway		-	2,023	13	595	1,415	18	1,077	
Other Areas		29,331	1,463	9	421	1,033	10	667	
Simcoe		**274,362**	**6,516**	**25**	**1,757**	**4,734**	**31**	**2,809**	**202,189**
Cornwall, c	M	46,619	1,031	3	331	697	3	474	(Veh. Reg.
Provincial Highway		-	187	0	59	128	0	95	inc. Dundas
Other Areas		16,791	167	4	54	109	4	79	& Glengarry)
Stormont		**63,410**	**1,385**	**7**	**444**	**934**	**7**	**648**	**70,654**
Capreol, t		3,684	40	0	9	31	0	16	
Espanola, t	M	5,312	63	0	14	49	0	19	
Nickel Centre, t		11,815	122	0	36	86	0	48	
Onaping Falls, t		5,303	36	0	8	28	0	14	
Rayside-Balfour, t		14,606	201	0	54	147	0	84	
Sudbury, c		90,402	2,701	4	707	1,990	6	1,047	
Valley East, t		21,149	324	3	108	213	3	166	
Walden, t		9,411	109	0	31	78	0	47	
Provincial Highway		-	795	9	251	535	13	425	
Other Areas		11,859	330	3	100	227	4	153	
Sudbury, Reg. Mun. And District	M	**173,541**	**4,721**	**19**	**1,318**	**3,384**	**26**	**2,019**	**121,975**
Geraldton, t		2,461	25	0	6	19	0	9	
Longlac, t		1,925	17	0	7	10	0	7	
Manitouwadge, twp		3,719	32	0	5	27	0	7	
Marathon, t	M	4,838	35	0	4	31	0	5	
Nipigon, twp		2,253	9	0	0	9	0	0	
Paipoonge, twp		2,866	2	0	1	1	0	1	
Schreiber, twp		1,865	4	0	0	4	0	0	

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident: Total Accidents	Fatal	Personal Injury	Property Damage	Persons: Killed	Injured	Motor Vehicle Registrations
Shuniah, twp		2,028	3	0	2	1	0	2	
Terrace Bay, twp	M	2,430	10	0	1	9	0	3	
Thunder Bay, c	M	110,289	3,271	6	709	2,556	6	998	
Provincial Areas		-	1,043	15	292	736	19	499	
Other Areas		7,682	332	1	82	249	1	145	
Thunder Bay		**142,356**	**4,783**	**22**	**1,109**	**3,652**	**26**	**1,676**	**112,831**
Englehart, t		1,702	7	0	2	5	0	4	
Haileybury, t		4,819	50	0	11	39	0	16	
Kirkland Lake, t	M	10,638	148	0	32	116	0	42	
New Liskeard, t	M	5,406	105	0	23	82	0	32	
Provincial Highway		-	389	6	118	265	16	193	
Other Areas		12,667	137	1	45	91	1	64	
Timiskaming		**35,232**	**836**	**7**	**231**	**598**	**17**	**351**	**26,332**
East York, borough		97,250	1,077	0	245	832	0	336	
Etobicoke, c		295,915	4,685	10	1,298	3,377	10	1,901	
North York, c		541,796	10,005	18	2,940	7,047	18	4,595	
Scarborough, c		485,240	8,686	19	2,445	6,222	19	3,789	
Toronto, c		598,939	20,117	32	5,185	14,900	33	7,054	
York, c		132,290	1,619	1	358	1,260	2	521	
Provincial Highway		-	7,985	13	1,906	6,066	13	3,135	
Toronto, Metro	**M**	**2,151,430**	**54,174**	**93**	**14,377**	**39,704**	**95**	**21,331**	**1,128,572**
Bobcaygeon, vl		2,327	11	0	3	8	0	5	
Eldon, twp		2,731	2	0	1	1	0	1	
Emily, twp		6,110	5	0	1	4	0	1	
Fenelon, twp		5,493	3	0	0	3	0	0	
Fenelon Falls, vl		1,799	17	0	3	14	0	5	
Lindsay, t	M	16,206	343	0	84	259	0	130	
Manvers, twp		5,006	3	0	1	2	0	1	
Mariposa, twp		6,568	3	0	2	1	0	2	
Somerville, twp		1,872	3	0	1	2	0	2	
Verulam, twp		3,689	2	0	2	0	0	3	
Provincial Highway		-	501	10	167	324	10	280	
Other Areas		8,976	517	7	148	362	8	232	
Victoria		**60,777**	**1,410**	**17**	**413**	**980**	**18**	**662**	**47,465**
Cambridge, c		89,953	1,626	2	425	1,199	2	633	
Kitchener, c		163,923	3,141	1	769	2,371	1	1,082	
North Dumfries, twp		6,541	89	1	27	61	1	48	
Waterloo, c		72,062	1,250	3	312	935	3	429	
Wellesley, twp		8,021	32	1	8	23	1	10	
Wilmot, twp		12,699	109	2	35	72	2	65	
Woolwich, twp		17,131	219	1	67	151	1	113	
Provincial Highway		-	853	10	265	578	10	425	
Other Areas		-	303	4	74	225	6	119	
Waterloo	**M**	**370,330**	**7,622**	**25**	**1,982**	**5,615**	**27**	**2,924**	**232,770**

Table 4.1 Continued

Location		Estimated Population (1991)	Class of Accident Total Accidents	Fatal	Personal Injury	Property Damage	Persons Killed	Injured	Motor Vehicle Registrations
Arthur, twp		2,456	5	0	3	2	0	3	
Arthur, vl		2,033	26	0	7	19	0	14	
Elora, vl		3,119	31	1	4	26	1	8	
Eramosa, twp		5,789	4	0	1	3	0	1	
Erin, twp		7,263	9	0	2	7	0	2	
Erin, vl		2,400	10	0	3	7	0	4	
Fergus, t	M	7,657	97	0	21	76	0	26	
Guelph, c	M	85,625	1,216	2	375	839	4	554	
Guelph, twp		3,122	8	0	3	5	0	4	
Harriston, t	M	1,946	10	0	3	7	0	5	
Minto, twp		2,297	2	0	1	1	0	1	
Mount Forest, t		4,095	62	0	12	50	0	18	
Palmerston, t	M	2,273	13	0	3	10	0	3	
Peel, twp		4,238	2	0	0	2	0	0	
Pilkington, twp		2,337	1	0	0	1	0	0	
Puslinch, twp		4,843	7	0	3	4	0	4	
West Garafraxa, twp		3,147	2	0	1	1	0	1	
Provincial Highway		-	825	16	261	548	21	487	
Other Areas		9,469	823	10	271	542	13	449	
Wellington		**154,109**	**3,153**	**29**	**974**	**2,150**	**39**	**1,584**	**104,349**
Aurora, t		27,840	368	2	58	308	2	77	
Georgina, t		27,838	318	1	83	234	1	121	
E. Gwillimbury, t		17,346	269	3	68	198	3	108	
King, twp		17,444	267	0	61	206	0	102	
Markham, t		145,325	1,803	3	312	1,488	4	444	
Newmarket, t		42,932	581	1	103	477	1	146	
Richmond Hill, t		74,007	805	1	153	651	1	219	
Vaughan, c		106,460	1,530	4	300	1,226	4	462	
Whitchurch Stouffville, t		17,403	240	3	60	177	4	88	
Provincial Highway		-	3,203	23	892	2,288	25	1,535	
Other Areas		-	487	1	112	374	1	173	
York	**M**	**476,595**	**9,871**	**42**	**2,202**	**7,627**	**46**	**3,475**	**336,022**

* Source: Ontario Ministry of Municipal Affairs Municipal Directory 1991

Population data in this table refers to those persons residing in a municipality on a permanent basis.

5 the vehicle

Passenger vehicles represent 74.4% of all registered vehicles, but are 60% of vehicles in fatal collisions, 73% in injury collisions, and 73% in property damage collisions. Trucks are 16% of registered vehicles. Tractor & semi-trailer vehicles are 8%, 2% and 2% in fatal, injury and property damage collisions respectively. Trucks were 22% of fatal, 17% of personal injury and 19% of property damage collisions. Motorcycles are 1.8% of vehicles but 4% of fatal collisions, 2% of injury collisions and one quarter of one per cent in property damage collisions.

Of those vehicles in fatal collisions 92% had no defect, 95% and 93% had no defects in personal injury and property damage collisions respectively.

Of the vehicles involved in collisions, 2% were uninsured. This breaks down to 4%, 3% and 1% in fatal, injury and property damage collisions.

Of all vehicles in collisions 7.7% had no damage, 37.6% had light damage, 31.7% had moderate damage, 13.3% had severe damage and 4.5% were demolished. The remaining 5% were unknown.

5a. vehicles in accidents

Table 5.1 Type of Vehicle Involved in All Accidents 1991

Type of Vehicle	Fatal	Personal Injury	Property Damage	Total
Passenger Car	964	79,687	207,650	**288,301**
Passenger Car & Trailer	4	193	674	**871**
Truck	346	18,451	55,651	**74,448**
Truck & Trailer	23	529	1,843	**2,395**
Tractor & Semi-trailer	99	1,264	4,126	**5,489**
Motorcycle	64	2,428	714	**3,206**
Bus	11	660	1,885	**2,556**
School Bus/Vehicle	12	312	1,063	**1,387**
Other - Or not Known	11	1,701	10,384	**12,096**
Non Motor Vehicle	62	4,447	1,522	**6,031**
Total	**1,596**	**109,672**	**285,512**	**396,780**

In 1988, major revisions were made in the recording of motor vehicle accident data. The above table now reflects a consolidation of various types of vehicles and /or trailers. Therefore, valid conclusions cannot be made when comparing this data to that of the years previous to 1988.

More detailed information for some vehicles is provided in the Vehicles of Special Interest Section.

Table 5.2 Condition of Vehicle by Class of Accident 1991

Condition of Vehicle	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
No Apparent Defect	1,467	104,389	265,959	**371,815**
Service Brakes Defective	3	244	382	**629**
Steering Defective	-	49	84	**133**
Tire Puncture or Blow Out	-	151	277	**428**
Tire Tread Insufficient	7	70	101	**178**
Headlamps Defective	-	9	15	**24**
Other Lamps or Reflectors Defective	2	33	103	**138**
Engine Controls Defective	-	25	73	**98**
Wheels or Suspension Defective	-	29	88	**117**
Vision Obscured	-	19	25	**44**
Trailer Hitch Defective	-	4	39	**43**
Other Defects	38	808	2,100	**2,946**
Unknown	79	3,842	16,266	**20,187**
Total	**1,596**	**109,672**	**285,512**	**396,780**

Table 5.3 Model Year of Vehicle by Class of Accident 1991

Model Year of Vehicle	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
1992	5	427	1,228	**1,660**
1991	82	6,181	16,678	**22,941**
1990	140	9,568	25,929	**35,637**
1989	161	10,978	29,480	**40,619**
1988	163	11,309	30,560	**42,032**
1987	127	9,834	26,628	**36,589**
1986	188	10,662	27,407	**38,257**
1985	149	9,390	24,184	**33,723**
1984	111	8,131	20,501	**28,743**
1983	70	5,210	12,857	**18,137**
1982 and earlier	351	22,092	54,521	**76,964**
Unknown	49	5,890	15,539	**21,478**
Total	**1,596**	**109,672**	**285,512**	**396,780**

Most vehicles in collisions were recorded as not having a defect. The most common known defect in fatal collisions was insufficient tire tread. In personal injury and property damage collisions the most common known defect was defective brakes followed by tire puncture or blow out.

Table 5.4 Insurance Status of Vehicle by Class of Accident 1991

Insurance	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
Insured	1,457	99,509	263,362	**364,328**
Not Insured	71	3,426	3,934	**7,431**
Unknown	68	6,737	18,216	**25,021**
Total	**1,596**	**109,672**	**285,512**	**396,780**

5b. putting the vehicle in context

Table 5.5 Vehicle Population by Type of Vehicle 1991

Vehicle Class	
Passenger	4,846,708
Motorcycle	117,017
Moped	4,202
Commercial*	1,047,745
Bus	20,245
School Bus	9,605
Motorized Snow Vehicle	346,932
Off-Road Vehicle	86,259
Road Building Machinery	957
Permanent Apparatus	3,952
Farm Trucks	33,516
Total	**6,517,138**

* Excludes single application vehicle registrations (SVAR).

Table 5.7 Vehicle Damage Level 1991

Damage	Class of Accidents			Total
	Fatal	Personal Injury	Property Damage	
None	80	11,628	18,780	**30,488**
Light	147	28,639	120,565	**149,351**
Moderate	171	28,763	96,658	**125,592**
Severe	249	24,496	27,953	**52,698**
Demolished	895	12,134	4,938	**17,967**
Unknown	54	4,012	16,618	**20,684**
Total	**1,596**	**109,672**	**285,512**	**396,780**

Vehicle Damage

None No visible damage.

Light Slight or superficial damage. Includes scratches, small dents, minor cracks in glass that do not affect safety or performance of vehicle.

Moderate Unsafe conditions result from damage. Vehicle must be repaired to make its condition meet requirements of law. Vehicle can be driven off road or limited distance but doing so would be unsafe.

Severe Vehicle cannot be driven. Requires towing. Would normally be repaired.

Demolished Vehicle damaged to the extent that repairs would not be feasible.

Table 5.6 Selected Types of Vehicles by Model Year 1991

Vehicle Class	Model Years											
	92	91	90	89	88	87	86	85	84	83	82+	Total
Passenger	94,699	367,990	408,713	452,924	474,258	438,016	484,393	425,927	374,518	243,219	1,082,051	**4,846,708**
Motorcycle	150	2,335	3,304	3,631	4,279	4,438	7,911	10,913	12,844	11,686	55,526	**117,017**
Moped	-	19	31	25	17	86	71	60	60	170	3,663	**4,202**
Commercial*	11,707	59,498	85,678	106,214	121,687	95,896	96,623	79,545	64,729	39,554	325,039	**1,086,170**
Bus	240	2,173	2,901	3,084	3,121	3,075	2,310	2,409	2,003	1,399	7,135	**29,850**
Motorized Snow Vehicle	5,957	13,682	16,724	16,974	15,059	12,101	9,713	8,166	5,688	6,439	236,429	**346,932**
Off-Road Vehicle	746	4,177	5,465	4,537	4,052	7,592	12,064	11,221	12,827	9,534	14,044	**86,259**
Total	**113,499**	**449,874**	**522,816**	**587,389**	**622,473**	**561,204**	**613,085**	**538,241**	**472,669**	**312,001**	**1,723,887**	**6,517,138**

6 vehicles of special interest

While passenger vehicles make up the majority of the motor vehicle population in Ontario, they share the road with other vehicles such as motorcycles, school vehicles, trucks, motorized snow vehicles, off-road vehicles, and bicycles. These vehicles present some special concerns in terms of their operating characteristics, accident trends, changes in vehicle population size or in areas of particular public concern. Some of the statistics pertaining to the unique road safety issues concerning these vehicles are presented in this section.

6a. motorcycles

Table 6.1 Motorcyclists* Killed and Injured 1987 - 1991

Year	Drivers		Passengers	
	Killed	Injured	Killed	Injured
1987	120	4,721	12	798
1988	76	3,866	13	666
1989	78	2,945	8	599
1990	68	2,392	6	580
1991	55	2,183	9	487

* Excludes moped drivers and passengers.

The number of registered motorcycles continues to decrease. Motorcycles now constitute 1.8% of registered motor vehicles. While the number of fatalities was down, motorcycle drivers and passengers represented 5.8% of all fatalities.

Figure 6.1 Registered Motorcycles and Licensed Motorcyclists 1982-1991

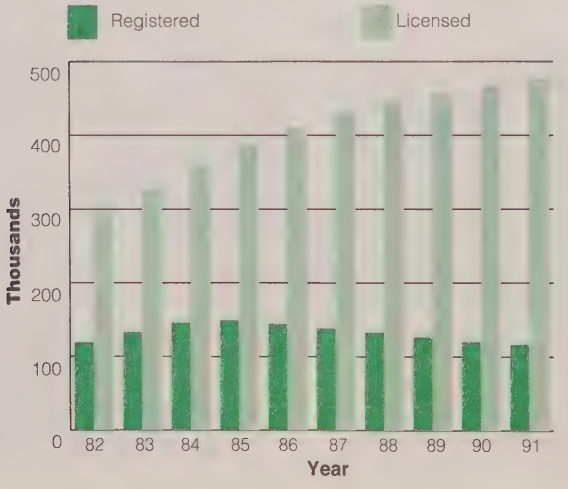


Table 6.2 Selected Factors Relevant to Fatal Motorcycle Accidents 1991

Factors	%
Unlicensed Motorcycle Drivers	23
Under 25 Years Old	50
Alcohol Used	
Ability Impaired Alcohol >.08	28
Had Been Drinking	19
Unknown	9
Helmet Not Worn (Fatalities)	5
Motorcycle Driver Error	
Speed Too Fast/Lost Control	52
Other Error	23
Single Vehicle Accidents	36
Day/Night	48/52
Weekend	42

Of all motorcycle drivers in fatal accidents, half were under the age of 25. Approximately 52% of the errors attributable to the motorcycle rider in fatal accidents was speed to fast or lost control. Of the drivers in fatal accidents, 23% were not correctly licensed for the vehicle.

6b. school vehicles

Table 6.3 Pupils Transported Daily, Total Accidents and Injury Rate per 100,000 Pupils - School Years 1986/87 - 1990/91

School Year	Pupils Transported Daily	Total Number of Accidents	Injury Rate Per 100,000 Pupils	
			Fatal	Non-Fatal
1986/87	685,825	922	0.1	26
1987/88	712,893	852	0.4	30
1988/89	751,153	1,259	0.3	27
1989/90	771,729	1,444	0.1	30
1990/91	789,963	1,315	0.4	32

Table 6.4 School Vehicle Type by Nature of Accident 1990/91

School Vehicle Type	Nature of Accident				Total Number of Accidents	Five Year Total (1986/87 1990/91)
	Fatal	Pupil Injury	Non-Pupil Injury	Property Damage		
School Bus	11	56	192	854	1,113	4,832
School Van	1	10	31	126	168	1,031
Other School Vehicles	-	4	9	21	34	77
Total Accidents	**12**	**70**	**232**	**1,001**	**1,315**	**5,792**

Table 6.5 Pupil Injury by Accident Event and Vehicle Type 1990/91

School Vehicle Type	Accident Event						Total		Five Year Total (1986/87 1990/91)	
	Crossing Road		Within School Vehicle		Other					
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
School Bus	3	-	-	216	-	11	3	227	9	930
School Van	-	-	-	16	-	1	-	17	-	163
Other School Vehicles	-	-	-	10	-	1	-	11	1	32
Total	**3**	**-**	**-**	**242**	**-**	**13**	**3**	**255**	**10**	**1,125**

6c. trucks

Table 6.6 Class of Truck Accident 1987-1991

Year	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
1987	483	25,100	45,589	**71,172**
1988	471	20,720	46,462	**67,653**
1989	466	19,959	50,085	**70,510**
1990	393	16,493	45,570	**62,456**
1991	389	13,843	41,694	**55,926**
Total	**2,202**	**96,115**	**229,400**	**327,717**

Table 6.7 Driver Licence Class Required by Class of Truck Accident 1991

Driver Licence Required	Class of Accident			Total
		Personal	Property	
	Fatal	Injury	Damage	
G	234	11,473	33,698	**45,405**
D	41	856	3,137	**4,034**
A*	114	1,514	4,859	**6,487**
Total	**389**	**13,843**	**41,694**	**55,926**

Table 6.8 Driver Licence Class Required - Accidents, Registered Trucks and Accident Rate 1991

Driver Licence Required	Accidents	Registered Vehicles	Accident Rate
G	45,405	951,309	4.8
D	4,034	57,332	7.0
A*	6,487	97,541**	6.6
Total	**55,926**	**1,106,182**	**5.0**

* Tractor/trailer combination only.
**Includes vehicles registered under the new SVAR system.

Data for truck/trailer combinations requiring Class "A" driver licence are not reported separately in the Vehicle Registration System.

Table 6.9 Selected Factors Relevant to Fatal Truck Accidents 1991

	Driver Licence Required		
Factors	Class G	Class D	Class A
Driver Condition in Fatal Accidents:			
Alcohol Involved	27.8%	-	3.0%
Driving Properly	47.4%	63.4%	64.0%
Single Vehicle	36.3%	24.4%	24.6%
Vehicle Defect Present*	1.3%	12.2%	2.6%
Urban Area	28.2%	31.7%	12.3%
Daylight	56.0%	75.6%	52.6%

*Excludes unknown category

6d. off-road vehicles

Table 6.10 Accident Location by Off-Road Vehicle Drivers Killed and Injured 1987 - 1991

Location	Killed					Injured				
	1987	1988	1989	1990	1991	1987	1988	1989	1990	1991
On-Highway	8	2	-	-	4	97	42	24	31	34
Off-Highway	6	5	10	3	5	79	159	124	135	139
Total	**14**	**7**	**10**	**3**	**9**	**176**	**201**	**148**	**166**	**173**

Table 6.11 Accident Location by Off-Road Vehicle Passengers Killed and Injured 1987 - 1991

Location	Killed					Injured				
	1987	1988	1989	1990	1991	1987	1988	1989	1990	1991
On-Highway	-	-	-	-	1	32	8	10	10	9
Off-Highway	1	1	-	-	-	22	41	36	43	44
Total	**1**	**1**	**-**	**-**	**1**	**54**	**49**	**46**	**53**	**53**

For the purposes of this publication, off-road vehicles include dune buggies, off-road motorcycles (dirt bikes), and three and four wheeled all-terrain vehicles. Off-road vehicles were first required to be registered on June 1, 1984.

Table 6.12 Registered Off-Road Vehicles 1987 - 1991

Year	Vehicles Registered
1987	62,038
1988	68,634
1989	74,316
1990	80,274
1991	86,259

Table 6.13 Selected Factors Relevant to All Off-Road Vehicle Accidents 1991

Factors	%
Drivers Under 25 Years of Age	59
Alcohol Used	17
Speeding	27
Helmet Not Worn	46
Daytime	72
Two-Wheeled	24
Three-Wheeled	29
Four-Wheeled	47

6e. motorized snow vehicles

Table 6.14 Accident Location by Motorized Snow Vehicle Drivers Killed and Injured - Riding Seasons 1986/87-1990/91

Location	Killed					Injured				
	86/87	87/88	88/89	89/90	90/91	86/87	87/88	88/89	89/90	90/91
On-Highway	5	4	2	2	5	137	111	63	51	37
Off-Highway	13	13	27	31	24	143	166	246	250	279
Total	**18**	**17**	**29**	**33**	**29**	**280**	**277**	**311**	**301**	**316**
% On-Highway	**28**	**24**	**7**	**6**	**17**	**49**	**40**	**20**	**17**	**12**

Table 6.15 Accident Location by Motorized Snow Vehicle Passengers Killed and Injured - Riding Seasons 1986/87 - 1990/91

Location	Killed					Injured				
	86/87	87/88	88/89	89/90	90/91	86/87	87/88	88/89	89/90	90/91
On-Highway	-	-	1	-	1	49	28	21	15	7
Off-Highway	1	5	4	5	7	45	53	84	101	98
Total	**1**	**5**	**5**	**5**	**8**	**94**	**81**	**105**	**116**	**105**

Table 6.16 Registered Motorized Snow Vehicles 1987-1991

Year	Registered Motorized Snow Vehicles 1987-1991
1987	263,681
1988	285,744
1989	308,373
1990	328,343
1991	346,932

Table 6.17 Selected Factors Relevant to All Motorized Snow Vehicle Accidents 1990/91

Factors	%
Unlicensed Operators	10
Rider Error; Speed Too Fast	30
Alcohol Used	18
Surface Condition; Icy or Packed Snow	60

6f. bicycles

Table 6.18 Bicyclists* Killed and Injured 1987-1991

Year	Drivers		Passengers	
	Killed	Injured	Killed	Injured
1987	34	5,093	1	41
1988	43	4,293	-	34
1989	33	4,020	-	139
1990	29	3,518	-	172
1991	27	3,797	-	178

*Only accidents involving a bicycle and a motor vehicle or streetcar are required to be reported. These tables do not include bicycle only, bicycle/bicycle or bicycle-pedestrian accidents.

Table 6.19 Age of Bicyclist* Involved in Accidents by Light Condition 1991

Light Condition	Age Groups						
	0 - 5	6 - 15	16 - 30	31 - 60	61+	UK	Total
Daylight	58	1,345	1,453	593	90	275	**3,814**
Dawn	-	2	15	8	1	-	**26**
Dusk	2	64	61	23	4	15	**169**
Dark	4	104	312	102	12	39	**573**
Total	**64**	**1,515**	**1,841**	**726**	**107**	**329**	4,582

Table 6.20 Selected Factors Relevant to All Bicycle Accidents 1991

Factors	%
Driving Properly (Bicyclist)	43
Driving Properly (Motor Vehicle Driver)	47
Intersection Related	64
Going Ahead (Bicyclist)	80
Alcohol Related (Bicyclist)	3
No Apparent Vehicle Defect (Bicycle)	90
Clear Visibility	94
Weekend	19

7 conviction and suspension data

Of all motor vehicle related convictions during 1991, almost 93% were under the Ontario Highway Traffic Act, 4% were under the Motor Vehicle Accident Claim/Compulsory Insurance Act, 3% were under the Criminal Code of Canada and 1% were under Municipal By-laws.

Of all Criminal Code of Canada convictions, 87% were alcohol related, 7% were for driving while disqualified, 3% were for dangerous driving and 3% were for fail to remain at accident.

Of the Ontario Highway Traffic Act convictions, 33% were for non-pointable speeding and a further 27% for pointable speeding , 17% were for other pointable offences, 10% were for non-use of seat belts, 9% were for administrative infractions and 2% were for equipment defects.

Approximately 55% of suspensions for alcohol related offences were to drivers with a previous alcohol offence.


O.P.P. N510392

CERTIFICATE OF OFFENCE/PROCES-VERBAL D'INFRACTION

DRIVER'S LICENCE NO NUMERO DE PERMIS DE CONDUIRE

PROVINCE

N510392

Summons issued for/Assignation delivree pour

7a. conviction data

Table 7.1 Summary of Motor Vehicle Related Convictions 1991

Convictions**	Number
Highway Traffic Act	1,275,049
Regulation H.T.A	2,369
Criminal Code of Canada*	34,921
Municipal By-Law	10,769
Motor Vehicle Accident Claim/Compulsory Insurance Act**	54,259
Total	**1,377,367**

*This figure does not include 302 convictions for young offenders under the Criminal Code.

** Includes manually recorded convictions.

Table 7.2 Motor Vehicle Convictions Related to the Highway Traffic Act 1991

Convictions	Number
Equipment	23,078
Administrative*	109,323
Seat Belt (Driver & Passenger)**	113,886
Other Non-Pointable Convictions***	11,843
Speeding (< 16 km/h, non-pointable)	387,488
Pointable Speeding	314,683
Other Pointable Convictions (2 - 4 pt)	191,438
Other Pointable Convictions (5 - 7 pt)	14,971
Driving While Suspended	14,626
Total	**1,181,336**

* Non-moving, weight, vehicle registration, licence renewal, etc.

** Failure to wear seat belt convictions registered against passengers over 16 are no longer included.

*** Now includes some out of province convictions.

Table 7.3 Motor Vehicle Convictions Related to the Criminal Code 1991*

Convictions	Number
Alcohol Related**	30,212
Criminal Negligence	45
Fail to Remain at Accident	998
Driving While Disqualified	2,565
Dangerous Driving	1,101
Motor Manslaughter	-
Total	**34,921**

*Does not include 302 convictions for young offenders.

**Includes some out of province convictions.

Due to an error in production of the 1990 publication Table 7.2 was not properly updated. Below is the corrected 1990 Table 7.2.

Table 7.2a Motor Vehicle Convictions Related to the Highway Traffic Act 1990

Convictions	Number
Equipment	28,457
Administrative*	114,265
Seat Belt (Driver & Passenger)**	120,325
Other Non-Pointable Convictions***	16,107
Speeding (< 16 km/h, non-pointable)	408,735
Pointable Speeding	380,926
Other Pointable Convictions (2 - 4 pt)	218,797
Other Pointable Convictions (5 - 7 pt)	17,194
Driving While Suspended	12,022
Total	**1,316,828**

7b. suspension data

Table 7.4 Mandatory Suspensions Related to Criminal Code Convictions Issued 1991*

Suspensions	3 Months	6 Months	1 Year	2 Years	3 Years	Total
Criminal Negligence (s. 203, 204)	-	-	13	30	1	**44**
Motor Manslaughter	-	-	-	-	-	**-**
Criminal Negligence (s. 233-1)	-	-	-	-	-	**-**
Fail to Remain (s. 233-2)	-	-	514	292	166	**972**
Dangerous Driving	-	-	510	355	197	**1,062**
Impaired Driving (s. 234)	10	2	5,595	5,186	2,665	**13,446**
Blood/Alcohol over .08	19	1	6,157	5,279	2,600	**14,036**
Failure to Provide Breath Sample	-	-	993	842	393	**2,228**
Failure to Provide Roadside Breath Sample	-	-	-	-	-	**-**
Drive while Disqualified or Prohibited	-	-	1,656	827	74	**2,557**
Total	**29**	**3**	**15,438**	**12,811**	**6,096**	**34,345**

* Total issued during the calendar year.

New federal and provincial laws relating to drinking and driving took effect December 20, 1985. Individuals convicted of offences which occurred prior to that date are not subject to the longer minimum mandatory suspension periods of the new laws.

Previous minimum suspension periods were 3 months for a first conviction, 6 months for the second conviction within five years and 3 years for a third conviction within five years. The current minimum suspension periods are 1 year for a first conviction, 2 years for a second conviction within five years and 3 years for a third conviction within five years.

Table 7.5 Mandatory Suspensions Related to Criminal Code Convictions at Year End 1991**

Suspensions	3 Months	6 Months	1 Year	2 Years	3 Years	Total
Criminal Negligence (s.203,204)	-	-	49	62	16	**127**
Motor Manslaughter	-	-	-	-	-	**-**
Criminal Negligence (s.233-1)	-	-	-	1	2	**3**
Fail to Remain (s. 233-2)	-	1	607	532	384	**1,524**
Dangerous Driving	-	-	760	713	447	**1,920**
Impaired Driving (s. 234)	2	1	6,966	7,997	4,663	**19,629**
Blood/Alcohol over .08	5	-	7,035	7,507	3,945	**18,492**
Failure to Provide Breath Sample	-	-	1,196	1,463	916	**3,575**
Failure to Provide Roadside Breath Sample	-	-	-	-	-	**-**
Drive While Disqualified or Prohibited	-	-	3,825	2,249	147	**6,221**
Total	**7**	**2**	**20,438**	**20,524**	**10,520**	**51,491**

** This table reflects the suspensions in effect at year end. The total exceeds the number of suspensions issued in 1991 due to the fact that some suspensions are in effect for more than one year.

Table 7.6 Demerit Point Suspensions by Driver Age 1991

Driver Age	Demerit Point Suspensions		
		Non-Probationary First	Non-Probationary Second
	Probationary	Accumulation	Accumulation
16	605	-	-
17	2,174	1	-
18	2,823	12	-
19	1,691	59	-
20 - 24	4,523	893	103
25 - 34	3,713	952	103
35 - 44	1,020	330	29
45 - 54	232	113	12
55 - 64	66	43	2
65 - 74	9	13	2
75+	1	5	-
Total	**16,857**	**2,421**	**251**

Newly licensed drivers are covered by the probationary licence system until they have successfully completed two one-year periods of suspension free driving. Probationary drivers are suspended for 30 days after accumulating 6 or more demerit points. Non-probationary drivers are suspended for 30 days on the first accumulation of 15 demerit points and are suspended for 6 months on the second accumulation of 15 points within 2 years.

8 appendix

8a. glossary of terms

8a. glossary

Ability Impaired Alcohol:
Driving while one's ability is impaired by alcohol or driving with a blood alcohol concentration exceeding 80 milligrams in 100 millilitres of blood.

Alcohol Involved:
This category includes both drivers reported as ability impaired by alcohol and drivers reported as had been drinking.

Class L Driver's Licence:
The learner's licence that allows the holder to drive any motor vehicle that requires a class G driver's licence (e.g. an automobile) on the road, providing that the holder of a class G licence or any other higher licence class (A,B,C,D,E and F) is occupying the seat beside him/her for the purpose of giving instruction.

Class R Driver's Licence:
The learner's licence that allows the holder to operate a motorcycle for the purposes of training. Class R licensed motorcyclists are prohibited from nighttime riding, carrying passengers and travelling on high speed highways with exceptions of Highways 11 and 17.

Conviction:
Awarded when a person pleads guilty to, or is found guilty of, an offence related to a motor vehicle under any Act of the Ontario Legislature or its accompanying regulations, under the Parliament of Canada or any accompanying order, or under any municipal by-law.

Driver:
Unless specified otherwise, any person, whether licensed or not, considered to be in care and control of a vehicle at the time of an accident.

Fatal Accident:
A motor vehicle accident in which at least one person sustains bodily injuries resulting in death.*

Had Been Drinking:
Driving after having drunk an amount of alcohol not considered sufficient to be legally impaired or with a measured blood alcohol count of greater than zero but less than 80 milligrams.

Highway:
A common and public highway, street, avenue etc., any part of which is intended for public use or used by the general public for the passage of vehicles and including the area between the property lines.

Kilometres Travelled:
Vehicle fleet mileage is estimated on the basis of taxed gasoline and motor fuel sales. Total litres sold are converted to kilometres travelled based on a conversion factor of 22.0 kilometres per gallon.

Major Injury:
A non-fatal injury severe enough to require that the injured person be admitted to hospital, even if for observation only.

Minimal Injury:
A non-fatal injury, including minor abrasions and bruises, which does not necessitate the injured person going to a hospital.

Minor Injury:
A non-fatal injury requiring medical treatment at a hospital emergency room, but not requiring hospitalization of the involved person.

Motor Vehicle Accident:
Any incident in which bodily injury or damage to property is sustained as a result of the movement of a motor vehicle, or of its load while a motor vehicle is in motion.

Off-Highway Accidents:
An off-highway accident involving any of the motorized vehicles which are covered by legislation under the Highway Traffic Act, the Motorized Snow Vehicles Act, and the Off-Road Vehicles Act.

On-Highway Accidents:
A motor vehicle accident which occurs on the highway, between the property lines.

Pedestrian:
Any person not riding in or on a vehicle involved in a motor vehicle accident.

Personal Injury Accident:
A motor vehicle accident in which at least one person involved sustains bodily injuries not resulting in death.

Property Damage Accident:
A motor vehicle accident in which no person sustains bodily injury, but in which there is damage to any public property or damage to private property** including damage to the motor vehicle or its load.

Reportable Accident:
Any fatal or injury accident, or any accident in which there is any damage to public property or damage to private property in excess of a monetary value prescribed in law.**

Suspension:
Withdrawal of a driver's privilege to operate a motor vehicle for a prescribed period of time.

*Prior to January 1, 1982, fatal accident statistics included deaths attributed to accidental injuries up to one year after the accident. Since that date, only deaths from injuries within thirty days of the accident have been included.

** The minimum reportable level for property damage only accident rose from $200 to $400 on January 1, 1978 and rose again to $700 on January 1, 1985.

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